

**CITY OF HUNTINGTON BEACH  
PLANNING & BUILDING DEPARTMENT  
DRAFT MITIGATED NEGATIVE DECLARATION NO. 2008-012**

**1. PROJECT TITLE:** Tri Pointe Homes Wardlow Residential Subdivision

**Concurrent Entitlements:** General Plan Amendment No. 2008-004, Zoning Map Amendment No. 2008-004, Tentative Tract Map No. 17239 & Conditional Use Permit No. 2008-025

**2. LEAD AGENCY:** City of Huntington Beach  
2000 Main Street  
Huntington Beach, CA 92648

**Contact:** Andrew Gonzales, Associate Planner  
**Phone:** 714.374.1547

**3. PROJECT LOCATION:**

The project site is located at 9191 Pioneer Drive (north side of Pioneer Drive, east of Magnolia Avenue) at the former Wardlow School site in the City of Huntington Beach, California.

**4. PROJECT PROPONENT:** Tri Pointe Homes, LLC  
19520 Jamboree Road, Suite 200  
Irvine, CA 92612

**Contact Person:** Thomas Grable  
**Phone:** 949.478.8674

**5. GENERAL PLAN DESIGNATION:**

**Existing:** Public (Residential Low Density) (P(RL))  
**Proposed:** Residential Low Density (RL-7)

**6. ZONING:**

**Existing:** Public-Semipublic (PS)  
**Proposed:** Residential Low Density (RL)

**PROJECT DESCRIPTION** (Describe the whole action involved, including, but not limited to, later phases of the project, and secondary support, or offsite features necessary for implementation):

The project proposes to subdivide the 8.35-acre former Wardlow School site to accommodate 49 lots for new detached single-family homes. All existing school buildings and onsite improvements are proposed to be demolished in conjunction with the project.

The project is adjacent to the City's Wardlow Park. The project is proposing to dedicate a 0.82 acre portion of land for the purposes of constructing a new landscaped parking lot containing 80 parking spaces. This parking lot is proposed to satisfy the project's Quimby Act requirement for parkland dedication. The land will be

dedicated to the City for the purposes of providing parking for those utilizing the adjacent Wardlow Park. This 0.82 acre for parkland (in the form of the new landscaped parking lot) is to be incorporated into the adjacent Wardlow Park and its Huntington Valley Little League baseball facilities.

This project requests a General Plan Amendment to change the existing General Plan designation of Public (Residential Low Density) (P(RL)) to Residential Low Density (RL-7). This project also proposes a Zoning Map Amendment to change the existing zoning of Public-Semipublic (PS) to RL (Residential Low Density). The project also proposes to be developed as a Planned Unit Development (PUD). Specific project entitlements are as follows:

#### **General Plan Amendment No. 2008-004**

To amend the General Plan land use designation from Public with an underlying designation of Residential Low Density (P(RL)) to Residential Low Density (RL-7), which allows for a maximum density of seven units per acre.

#### **Zoning Map Amendment No. 2008-004**

To amend the zoning designation from Public-Semipublic (PS) to Residential Low Density (RL).

#### **Tentative Tract Map No. 17239**

To subdivide 8.35 acres of land to accommodate 49 numbered lots for new detached single-family homes and seven lettered lots A-G for streets, landscaping, and a parking lot to be dedicated to the City. The project will incorporate varying lot sizes that average approximately 4,250 square feet (50 feet wide by 85 feet deep). The streets will be private and will feature a standard 40-foot wide curb-to-curb interior street section at the primary entrance into the tract and a reduced 36-foot section for the interior streets. The street sections will be designed with a 4-foot wide sidewalk and 6-foot wide parkway on each street side. On street parking will be provided within the tract to accommodate approximately 64 vehicles. Language will be placed into the project CC&Rs specifically allowing and guaranteeing the ongoing ability of the general public to park on and use the private streets. All streets, landscaping, storm drains and sewers facilities will be privately maintained by an established homeowners association.

#### **Conditional Use Permit No. 2008-025**

To permit the development of a 49 unit single-family subdivision and associated infrastructure including site improvements, grading and construction of offsite sewer, water and storm drain improvements. The proposed project is proposed as a Planned Unit Development (PUD). The PUD is necessary because all of the lots are below the minimum 6,000 square feet standard for RL developments.

The dwelling units will range in size from 2,800 square feet to 3,200 square feet. The proposed units are two-story with a maximum height of 30 feet 2 inches. Each unit will feature a 4-bedroom layout that includes a two-car enclosed garage and two-car driveway.

The project will feature a green building program. As part of the project's program, the homes will meet all mandatory measures of the State of California Housing and Community Development's 2010 California Green Building Code. Additionally, the project proposes additional green building features including but not limited to achieving energy efficiency 30 percent greater than the current 2008 California Energy Commission Title 24 code standards, providing solar electric photovoltaic (PV) systems as a standard feature and providing homes that are "EV Ready" with 120V/240V electrical plugs in garages.

The project includes a water quality basin that will treat water from the project site before being released into the public's downstream storm drain system. A storm drain will be constructed underneath the 80-space parking lot that will serve to alleviate an ongoing problem of cross lot drainage and flooding at the northeast corner of Wardlow Park. This storm drain will run the length of the parking lot and tie into the storm drain that the proposed project will build in Pioneer Drive (the construction of approximately 1,300 linear feet of public storm drain line within Pioneer Drive and Lotus Lane), which in turn will connect into the storm drain the project will build in Lotus Lane. The project proposes to construct the Master Plan of Drainage storm

drain, which will run approximately 605 linear feet beginning from the intersection of Lotus Lane and Gettysburg Drive southward to tie into the existing storm drain in Adams Avenue. The total storm drain improvement will be 1,905 linear feet. The project will also install a detention facility or depression and construct a drain inlet in the northeast corner area of the adjacent Wardlow Park to specifications to be determined by the City of Huntington Beach to alleviate the current problem of cross lot drainage and flooding.

Additionally, the project will construct a snack bar/equipment room/public restroom facility on the Wardlow Park grounds to replace the one that will be demolished on the school property. The new facility is anticipated to be of a size comparable to the building removed (approximately 1,000 square feet). Furthermore, an overhead light fixture is proposed to be installed in the northeast corner of the park to provide illumination as an additional security feature and improve overall visibility, and the property proposes to relocate the streetlights currently located on the south side of Pioneer Drive and serviced by an overhead electrical line to the north side of Pioneer Drive. The power lines that run along the north side of Pioneer Drive along the southerly edge of Huntington Valley Little League ball fields from Magnolia Street to the Former Wardlow School buildings are proposed be removed and placed underground to the terminus in an above ground vault on the City's Wardlow Park property. The chain link fence that runs the length of the south edge of the ball fields on the side of Pioneer Drive is proposed to be replaced with a new fence.

The proposed project will comply with the City's affordable housing requirement by electing to provide a minimum of 4 affordable units at an offsite location that will be under the full control of Tri Pointe Homes or another City approved party.

**8. SURROUNDING LAND USES AND SETTING:**

The site is bounded by single-family residences to the north and south, a County of Orange flood control channel on the eastern border with residences beyond, and Wardlow Park, a City park, with existing baseball fields adjacent to Magnolia Street to the west.

The Wardlow School site, totaling 14.4 acres, was owned by the Fountain Valley Unified School District. The school was designated as a closed school site, and in 2005, the School District decided to sell the site. In November 2005, the City acquired six acres of the school site to be maintained as open space. The remaining 8.35 acres were acquired by the project proponent and are the subject of the proposed project.

**9. OTHER PREVIOUS RELATED ENVIRONMENTAL DOCUMENTATION:** None.

**10. OTHER AGENCIES WHOSE APPROVAL IS REQUIRED (AND PERMITS NEEDED) (i.e., permits, financing approval, or participating agreement):** None.

**ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:**

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" or is "Potentially Significant Unless Mitigated," as indicated by the checklist on the following pages.

- |                                                             |                                                                     |                                                                        |
|-------------------------------------------------------------|---------------------------------------------------------------------|------------------------------------------------------------------------|
| <input type="checkbox"/> Land Use/Planning                  | <input type="checkbox"/> Transportation/Traffic                     | <input type="checkbox"/> Public Services                               |
| <input type="checkbox"/> Population/Housing                 | <input checked="" type="checkbox"/> Biological Resources            | <input type="checkbox"/> Utilities/Service Systems                     |
| <input checked="" type="checkbox"/> Geology/Soils           | <input type="checkbox"/> Mineral Resources                          | <input type="checkbox"/> Aesthetics                                    |
| <input checked="" type="checkbox"/> Hydrology/Water Quality | <input checked="" type="checkbox"/> Hazards and Hazardous Materials | <input checked="" type="checkbox"/> Cultural Resources                 |
| <input type="checkbox"/> Air Quality                        | <input type="checkbox"/> Noise                                      | <input type="checkbox"/> Recreation                                    |
| <input type="checkbox"/> Agriculture Resources              | <input type="checkbox"/> Greenhouse Gas Emissions                   | <input checked="" type="checkbox"/> Mandatory Findings of Significance |

**DETERMINATION**

(To be completed by the Lead Agency)

On the basis of this initial evaluation:

I find that the proposed project **COULD NOT** have a significant effect on the environment, and a **NEGATIVE DECLARATION** will be prepared.

I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because the mitigation measures described on an attached sheet have been added to the project. A **MITIGATED NEGATIVE DECLARATION** will be prepared.

I find that the proposed project **MAY** have a significant effect on the environment, and an **ENVIRONMENTAL IMPACT REPORT** is required.

I find that the proposed project **MAY** have a "potentially significant impact" or a "potentially significant unless mitigated impact" on the environment, but at least one impact (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An **ENVIRONMENTAL IMPACT REPORT** is required, but it must analyze only the effects that remain to be addressed.

I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or **NEGATIVE DECLARATION** pursuant to applicable 0, and (b) have been avoided or mitigated pursuant to that earlier EIR or **NEGATIVE DECLARATION**, including revisions or mitigation measures that are imposed upon the proposed project, **nothing further is required.**

Andrew A. Gonzales  
Signature

8/22/12  
Date

ANDREW A. GONZALES  
Printed Name

ASSOCIATE PLANNER  
Title

**EVALUATION OF ENVIRONMENTAL IMPACTS:**

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to the project. A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards.
2. All answers must take account of the whole action involved. Answers should address offsite as well as onsite, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3. "Potentially Significant Impact" is appropriate, if an effect is significant or potentially significant, or if the lead agency lacks information to make a finding of insignificance. If there are one or more "Potentially Significant Impact" entries when the determination is made, preparation of an Environmental Impact Report is warranted.
4. "Potentially Significant Impact Unless Mitigated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures may be cross-referenced).
5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). Earlier analyses are discussed in Section XIX at the end of the checklist.
6. References to information sources for potential impacts (e.g., general plans, zoning ordinances) have been incorporated into the checklist. A source list has been provided in Section XIX. Other sources used or individuals contacted have been cited in the respective discussions.
7. The following checklist has been formatted after Appendix G of Chapter 3, Title 14, California Code of Regulations, but has been augmented to reflect the City of Huntington Beach's requirements.

(Note: Standard Code Requirements - The City imposes standard code requirements on projects which are considered to be components of or modifications to the project, some of these standard conditions also result in reducing or minimizing environmental impacts to a level of insignificance. However, because they are considered part of the project, they have not been identified as mitigation measures. For the readers' information, a list of applicable code requirements identified in the discussions has been provided as Attachment No. 1.

***SAMPLE QUESTION:***

<i>ISSUES (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
<p><i>Would the proposal result in or expose people to potential impacts involving:</i></p> <p><i>Landslides? (Sources: 1, 6)</i></p> <p><i>Discussion: The attached source list explains that 1 is the Huntington Beach General Plan and 6 is a topographical map of the area which show that the area is located in a flat area. (Note: This response probably would not require further explanation).</i></p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

ISSUES (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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**I. LAND USE AND PLANNING. Would the project:**

- a) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect? (Sources: 1, 2)
- 

**Discussion:** The current General Plan land use designation is Public (Residential Low Density) (P(RL)). The project site's current zoning designation, Public-Semipublic (PS), does not allow for residential development, except for General Residential Care. As a result, in addition to the project requests for Tentative Tract Map No. 17239 and Conditional Use Permit No. 2008-025, the applicant requests the following:

- General Plan Amendment No. 2008-004 to change the site's land use designation to Residential Low Density (RL-7)
- Zoning Map Amendment No. 2008-004 to change the current zoning designation of Public-Semipublic (PS), to Residential Low Density (RL)

**General Plan Amendment**

As described above, the project will require a General Plan Amendment. The underlying RL designation indicates that if the public school use onsite were to be discontinued that the future land use of RL was contemplated in a broad sense in the City's General Plan. Due to the surrounding low density single family residential development and land use designation, the proposed General Plan Amendment would facilitate the development of a residential project that blends into the existing low density single family residential development in the project vicinity and will not conflict with the General Plan.

**Zoning Map Amendment**

The City Zoning Map designates the project site as Public-Semipublic (PS). This designation provides areas for large public or semipublic uses. However, a Zoning Map Amendment is requested for the development of 49 single-family residential units at the site. The proposed Zoning designation would be consistent with the requested General Plan land use for the site and Zoning designations of residential development in the vicinity of the project.

**Planned Unit Development**

The project will be developed as a Planned Unit Development (PUD) because it proposes residential lot sizes that do not comply with the RL zoning standards. PUDs allow for flexibility in development standards to encourage innovative land use development that achieves quality site planning and design and aesthetically pleasing environments through architecture and landscape improvements. Within the City PUDs are required to provide a mutual benefit for residents of the project as well as the general public. Interior lot sizes range from 4,152 to 5,864 square feet and perimeter lots (adjacent to existing homes) range in size from 4,697 to 5,146 square feet. The code minimum is 6,000 square feet. Despite the request for smaller lots, the project has been designed to exceed the minimum rear building setbacks for those proposed perimeter lots (i.e., lots 10 through 21) that are adjacent to existing homes directly north of the project site. Based on the Proposed Building Setbacks plan, the rear setbacks are as shown in the table below. For those perimeter lots adjacent to existing homes, the proposed project provides rear setbacks in excess of the minimum 10 feet that is required under the RL zone.

ISSUES (and Supporting Information Sources):

Potentially Significant Impact      Potentially Significant Unless Mitigation Incorporated      Less Than Significant Impact      No Impact

**Table 1: Minimum Rear Building Setbacks for Proposed Perimeter Lots Adjacent to Existing Homes**

Plan	Minimum Rear First Floor Building Setback	Maximum Rear First Floor Building Setback	Rear Second Floor Glazing Setback: Minimum Major Glazing Setback:	Rear Second Floor Glazing Setback: Maximum Major Glazing Setback:
1	25 feet	26 feet 4 inches	25 feet 1 inch	37 feet 4 inches
2	20 feet	21 feet	31 feet 4 inches	32 feet 6 inches
3	21 feet	22 feet 1 inch	21 feet	34 feet 1 inch

Source: Project plans, Bassenian Latgoni, 05.15.12

No significant environmental land use impacts are anticipated as a result of the lot size deviations proposed by the project because the project has been designed to provide additional setbacks to those existing homes located adjacent to the northern boundary of the project site. The project complies with all other zoning standards.

The project site is not located in the Coastal Zone of the City of Huntington Beach; therefore, the project will have no impact regarding the Local Coastal Program for the City.

b) Conflict with any applicable habitat conservation plan or natural community conservation plan? (Sources: 1, 31, 34)                       

**Discussion:** The project site is located in a developed area in the City of Huntington Beach, and there are no habitat conservation plans or natural community conservation plans in effect in the City. Therefore, no impacts would occur in this regard.

c) Physically divide an established community? (Sources: 1, 2)                       

**Discussion:** The proposed project involves the construction of 49 single-family units and a park parking lot. The project site has been identified for development in the City's General Plan, and is zoned for development. The project site is developed with a former school (Wardlow School). Due to the project's location in an already developed area in Huntington Beach, the proposed project would not physically divide an established community because the project involves infill development into a predominantly residential area. Therefore, no impacts are anticipated.

ISSUES (and Supporting Information Sources):

Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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**II. POPULATION AND HOUSING.** Would the project:

- a) Induce substantial population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extensions of roads or other infrastructure)? (Sources: 1, 23)
- 

**Discussion:** The project will provide 49 single-family units and accommodate an estimated population of 126 residents (2.56 persons per household, per 2010 Census Huntington Beach Quickfacts and per Table II-5 of the City of Huntington Beach Housing Element). The project will not induce substantial population growth due to the developed nature of the project site and surrounding area.

Based on 2010 census data, the City of Huntington Beach has a population of 189,992 persons. If the estimated 126 residents were assumed to be new residents to the City of Huntington Beach, this would represent approximately .06 percent of the City's total population. Per the Housing Element, the City's population is anticipated to grow to 217,822 by 2015. Thus, the population of the proposed project falls within the future estimates of the City's population.

Regarding the affordable housing that will need to be provided as part of the proposed project, Tri Pointe Homes has elected to provide the affordable units at an offsite location that will be under the full control of Tri Pointe Homes or another City approved party. Tri Pointe Homes may consider new construction or substantial rehabilitation (as defined by Government Code Section 33413 affordable housing production requirements) of existing non-restricted units with the condition that upon completion of the rehabilitation the units become restricted to long-term affordability. It is not anticipated that either the construction or rehabilitation of homes to meet the project's affordable housing requirement will have a significant impact on inducing substantial population growth because the units would be either a rehabilitation of existing units, which means that the infrastructure has already been provided or will be developed in an area with infrastructure nearby, as it would be cost prohibitive to develop affordable housing units in an area where existing infrastructure is not easily available.

Therefore, the proposed project would not induce substantial population growth in the area and impacts are considered less than significant.

- b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere? (Sources: 1, 67)
- 

**Discussion:** The project site is currently a closed school site, and no housing currently exists onsite. As such, no housing will be displaced. The project will comply with the City of Huntington Beach affordable housing requirements and the project would not result in the displacement of existing housing. No impact would occur.

ISSUES (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere? (Sources: 1, 67)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Discussion:** The proposed project site is currently a closed school site and no one currently resides on the project site. As such, no people would be displaced. The project will comply with the City of Huntington Beach affordable housing requirements and the project would not result in the displacement of people. No impact would occur.

**III. GEOLOGY AND SOILS.** Would the project:

- a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:
  - i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Sources: 33, 55, 59)
 

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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**Discussion:** The Geotechnical Investigation and Liquefaction Evaluation conducted for the project site states that the project site is not located within an Alquist-Priolo Earthquake Fault Zone and that therefore, the possibility of significant fault rupture on the site is considered to be low. The February 2012 Geotechnical Review and Commentary of Existing Reports and Plans states that no active faults are known to project through the site and the site does not lie within an Earthquake Fault Hazard Zone as designated by the State of California pursuant to the Alquist-Priolo Earthquake Zoning Act. Additionally, the proposed project will be developed in accordance with the 2010 California Building Code therefore, less than significant impacts are anticipated in this regard.

- ii) Strong seismic ground shaking? (Sources: 55, 59)
 

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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**Discussion:** As is the case with most locations in Southern California, the project site is located in a seismically active region that is characterized by moderate to strong seismic shaking. Per the February 2012 Geotechnical Review and Commentary of Existing Reports and Plans for the project site, structures within the site shall be designed and constructed to resist the effects of strong ground motion in accordance with the 2010 California Building Code. Additionally, no active faults are known to project through the site and the site does not lie within an Earthquake Fault Hazard Zone as designated by the State of California pursuant to the Alquist-Priolo Earthquake Zoning Act. As detailed in Geotechnical Investigation and Liquefaction Evaluation conducted for the project site, the proposed development must be designed in accordance with the requirements of the latest edition of the Uniform Building Code and/or the California Building Code. These codes provide procedures for earthquake resistant structural design that include considerations for onsite soil conditions, seismic zoning, occupancy, and the configuration of the structures including the structural system and height. Therefore, less than

ISSUES (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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significant impacts are anticipated in this regard.

iii) Seismic-related ground failure, including liquefaction? (Sources: 1, 55, 58)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Discussion:** Per the Geotechnical Investigation and the Liquefaction Investigation conducted for the project site, liquefaction is the loss of strength in generally cohesionless, saturated soils when the porewater pressure induced in the soil by a seismic event becomes equal to or exceeds the overburden pressure. The primary factors that influence the potential for liquefaction include groundwater table elevation, soil type and grain size characteristics, relative density of the soil, initial confining pressure, and intensity and duration of ground shaking. The depth within which the occurrence of liquefaction may impact surface improvements is generally identified as the upper 50 feet below the existing ground surface.

As detailed in Figure EH-7 in the Environmental Hazards Element of the City of Huntington Beach General Plan, the project site is located in an area with High to Very High Potential for liquefaction. As detailed in Geotechnical Investigation and Liquefaction Evaluation conducted for the project site, the project site is located in a designated liquefaction hazard zone.

The liquefaction potential of the site was analyzed utilizing a peak ground acceleration of 0.419 for a magnitude 6.9 seismic event. The liquefaction evaluation was performed using a historic groundwater depth of 3 feet.

The liquefaction analysis has identified potentially liquefiable soils at depths of 22 to 27(+/-) feet, 32 to 37(+/-) feet and 47 to 50 (+/-) feet at Boring No. B-2 and at depths of 6.5 to 8.5 (+/-) feet and 22 to 27(+/-) feet and 32 to 37(+/-) feet at Boring No. B-5. Soils that are located above the historic groundwater table (3 feet), or possess factors of safety in excess of 1.1 are considered non-liquefiable. The zones of clays, silty clays, and clayey silts encountered throughout the site are considered non-liquefiable due to their fine grained, cohesive characteristics.

Settlement analyses were conducted for the potentially liquefiable stratum. Based on the settlement analyses total dynamic (liquefaction induced) settlements of 3.6 (+/-) inches and 4.0 (+/-) inches could be expected at Borings B-2 and B-5, respectively. The estimated differential settlement would therefore be on the order of 0.4 (+/-) inch to 2.7(+/-) inches. The estimated differential settlement could be assumed to occur across a distance of 100 feet, indicating an angular distortion of less than 0.003 inches per inch. It should be noted that minor to moderate repairs, including repair of damaged drywall and stucco, etc., could be required after the occurrence of liquefaction-induced settlements.

Mitigation is recommended to reduce potential impacts from liquefaction and settlement, as follows:

**MM GEO-1:** The grading plan prepared for the proposed project shall contain the recommendations included in the reports listed below. These recommendations shall be implemented in the design of the project and include measures associated with site preparation, fill placement and compaction, seismic design features, excavation and shoring requirements, foundation design, concrete slabs and pavement, surface drainage, trench backfill, and geotechnical observation.

1. The August 23, 2007 Geotechnical Investigation and Liquefaction Evaluation Proposed Residential Development Wardlow School Site, prepared by Southern California Geotechnical.
2. The October 17, 2007, Additional Subsurface Exploration and Laboratory Testing Proposed Residential Development Wardlow School Site, prepared by Southern California Geotechnical.
3. February 17, 2012 Geotechnical Review and Commentary of Existing Reports and Plans for the Wardlow

ISSUES (and Supporting Information Sources):

	Potentially Significant Impact	Potentially Significant Mitigation Incorporated	Less Than Significant Impact	No Impact
		Potentially Significant		

School Site Project.

These reports suggest relatively uniform subsurface conditions exist across the project site. However, where existing school structures and improvements have precluded direct access to subsurface areas, additional borings and soil samples are recommended to provide deeper soil information. Although no new impacts or unusual subsurface conditions are anticipated, Mitigation Measure GEO-2 is recommended prior to construction to complete site investigations:

**MM GEO-2:** Prior to issuance of building permits for the project, in order to complete the soils information in areas of the site where existing structures and improvements have prevented easy access to deeper soil, additional subsurface borings shall be conducted. The project shall comply with any additional recommendations resulting from this additional subsurface investigation.

Implementation of Mitigation Measures GEO-1, and GEO-2 will reduce impacts in this regard to a less than significant level.

iv) Landslides? (Sources: 1)

**Discussion:** Slope failures are common during strong seismic shaking in areas of significant relief. However, the project site is located in a relatively flat area and no significant slopes are proposed as part of the project. Additionally, as detailed in the Environmental Hazards Element of the City of Huntington Beach General Plan (Figure EH-2), the project site is located in an area with no potential for having potentially unstable slope areas. Accordingly, no impacts to people or structures from landslides are anticipated.

b) Result in substantial soil erosion, loss of topsoil, or changes in topography or unstable soil conditions from excavation, grading, or fill? (Sources: 58)

**Discussion:** As described in the Additional Subsurface Exploration and Laboratory Testing report for the project site and MM GEO-2, following completion of the over-excavation, the subgrade soils under the building areas shall be evaluated by the geotechnical engineer to verify their suitability to serve as the structural fill subgrade, as well as to support the foundation loads of the new structures. Some localized areas of deeper excavation may be required if additional fill materials or wet, loose, porous, low density or otherwise unsuitable materials are encountered at the base of the over-excavation. Based on conditions encountered at the exploratory trench locations, and on the fact that the anticipated depths of over-excavation are deeper than the observed groundwater levels at the site, some zones of very moist to wet soils will be encountered at or near the base of the recommended over-excavation. Where these soils are exposed at the over-excavation subgrade level, some subgrade stabilization may be required.

Per the Additional Subsurface Exploration and Laboratory Testing report: scarification and significant air-drying of these materials may be sufficient to obtain a stable subgrade. If highly unstable soils are identified, and if the construction schedule does not allow for delays associated with drying, mechanical stabilization will be necessary. In this event, the geotechnical engineer will be contacted for supplementary recommendations. Typically, an

ISSUES (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant	Less Than Significant	No Impact
		Unless Mitigation Incorporated	Impact	

unstable subgrade can be stabilized using a suitable geotextile fabric, such as Mirafi 500X or 600X, and/or an 18-inch thick layer of coarse (2 to 4 inch particle size) crushed stone. After a suitable over-excavation subgrade has been achieved, the exposed soils should be scarified to a depth of at least 12 inches, moisture treated to 2 to 4 percent above optimum moisture content, and compacted. The previously excavated soils may then be replaced as compacted structural fill.

To mitigate for the potential need for subgrade stabilization, Mitigation Measure GEO-1 is recommended, for the project to follow the recommendations of the geotechnical reports prepared for the proposed project.

With implementation of Mitigation Measure GEO-1, it is anticipated that adhering to the recommendations in the October 17, 2007, Additional Subsurface Exploration and Laboratory Testing report will mitigate for potential impacts regarding any moist to wet soils that may be encountered at or near the base of the recommended over-excavation.

As described in the Additional Subsurface Exploration and Laboratory Testing report for the project site, most of the near surface soils possess appreciable silt and clay content and may become unstable if exposed to significant moisture infiltration or disturbance by construction traffic. In addition, based on their granular content, some of the onsite soils will also be susceptible to erosion.

With implementation of Mitigation Measure GEO-1, it is anticipated that adhering to the recommendations in the October 17, 2007, Additional Subsurface Exploration and Laboratory Testing report will mitigate for potential impacts regarding soil erosion.

With implementation of Mitigation Measure GEO-1 above, less than significant impacts are anticipated regarding substantial soil erosion, loss of topsoil, or changes in topography or unstable soil conditions from excavation, grading, or fill.

- c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on or off-site landslide, lateral spreading, subsidence, liquefaction or collapse? (Sources: 55, 58)

**Discussion:** As described in the Additional Subsurface Exploration and Laboratory Testing report for the project site, the results of the consolidation/collapse testing indicate that the existing near surface possible fill and native alluvial soils possess a significant potential for collapse when exposed to moisture infiltration, and a moderate to significant potential for consolidation when exposed to load increases in the range of those that will be exerted by the foundations of the proposed structures.

To mitigate for potential impacts from liquefaction and settlement described above, Mitigation Measure GEO-1 (in threshold a.iii) above is recommended to reduce potential impacts from liquefaction and settlement. With implementation of Mitigation Measure GEO-1, which requires that the proposed project implement the recommendations of the geotechnical reports prepared for the project, the proposed project is anticipated to have a less than significant impact in this regard.

ISSUES (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property? (Sources: 1, 58, 55)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Discussion:** Per the Geotechnical Investigation and Liquefaction Evaluation conducted for the project site, the expansion potential of the onsite soils was determined based on the results of soil samples, which indicated the expansive potential of onsite-soils as being low. As shown in Figure EH-12, Expansive Soil Distribution Map, of the City of Huntington Beach General Plan, the project is located in an area with low expansion (7 percent or less). The project is required to comply with Title 17, Excavation and Grading Code, in addition to implementing the recommendations of the Additional Subsurface Exploration and Laboratory Testing Report (dated October 17, 2007 by Southern California Geotechnical) to address potential impacts from expansive soils. Compliance with all applicable requirements and codes, in addition to implementation of site-specific recommendations of the October 17, 2007 Southern California Geotechnical report (per Mitigation Measure GEO-1 above), would ensure that the project would have less than significant impacts regarding expansive soil.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of wastewater (Sources: 67)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------	--------------------------	--------------------------	-------------------------------------

**Discussion:** Septic tanks or alternative wastewater disposal systems are not proposed with the proposed project. The proposed project will include connection to the existing City of Huntington Beach sewer system. Therefore, no impacts would occur in this regard.

**IV. HYDROLOGY AND WATER QUALITY.** Would the project:

a) Violate any water quality standards or waste discharge requirements? (Sources: 44)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
---------------------------------------------------------------------------------------	--------------------------	--------------------------	-------------------------------------	--------------------------

**Discussion:** The project site is within and, therefore, subject to the water quality regulations of the Santa Ana Regional Water Quality Control Board (SARWQCB). The SARWQCB is authorized to implement a municipal stormwater permitting program as part of the National Pollutant Discharge Elimination System (NPDES) authority granted under the federal Clean Water Act. The general permit applicable to this project is the "Statewide General Construction Stormwater Permit" which addresses waste discharge requirements for discharges of stormwater runoff associated with construction activities.

Consistent with municipal stormwater NPDES Permit No. CAS618030, issued by the Santa Ana RWQCB, the City of Huntington Beach is required to implement a stormwater pollution prevention plan (SWPPP) to minimize the incidence of construction-related pollutants entering the storm water system. Several items are required in a SWPPP, including the site maps showing drainage and discharge locations and the location of control measures, a description of the pollution prevention best management practices (BMPs) to be implemented on the site, BMP inspection procedures, and requirements for stormwater monitoring. Compliance with these requirements would

ISSUES (and Supporting Information Sources):

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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prevent violation of water quality standards and waste discharge requirements during the construction of the site. Additionally, a Water Quality Management Plan (WQMP) has been prepared, which is required by the City of Huntington Beach to be prepared prior to project construction. The WQMP identifies the Best Management Practices (BMPs) that will be used on the site to control predictable pollutant runoff, including: hydrologic source controls, biotreatment BMPs, treatment control BMPs, non-structural source control BMPs and Structural Source Control BMPs. Implementation of the BMPs identified in the WQMP would assure that stormwater from the project site during project construction and post development (operation) would not detrimentally impact the beneficial uses of receiving waters. As a result, impacts associated with this issue would be less than significant.

- b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted? (Sources: 44)
- 

**Discussion:** The project site derives its potable water supplies from the City of Huntington Beach. The project does not propose any groundwater-extracting wells. Additionally, the project site is currently developed with school buildings, parking lots and other impervious hardscape areas, and as such does not function as a substantial source of groundwater recharge. As detailed in the Water Quality Management Plan (WQMP) for the proposed project, under pre-project conditions, 53 percent of the project site contains impervious surfaces. With the proposed project, impervious surfaces would be increased to 60 percent of the project site. One of the public facilities improvements that will be incorporated and built within the improved parking lot (which will be dedicated to the City of Huntington Beach), is a storm drain underneath the parking lot that will serve to alleviate an ongoing problem of cross lot drainage and flooding at the northeast corner of Wardlow Park. The storm drain within the project will be private and maintained by a homeowners association. This storm drain has been designed to meet the needs of the proposed project. Thus, the proposed conversion to residential use would not substantially increase impervious areas or interfere with groundwater percolation and recharge because at the point at which flooding is occurring there is too much water to be absorbed into the ground. The revised project will alleviate this flooding. Therefore, the project would not substantially deplete groundwater supplies, or substantially interfere with groundwater recharge. Thus, impacts associated with groundwater are considered less than significant.

- c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on or off-site? (Sources: 67)
- 

**Discussion:** The proposed project is located on a previously developed site that contains a vacant school. Thus, the proposed project would not alter the course of a stream or river in a manner that would result in substantial erosion or siltation on or offsite. Also, by implementing the project SWPPP during construction and Water

ISSUES (and Supporting Information Sources):	Potentially	Potentially	Less Than	No Impact
	Significant	Significant	Significant	
	Impact	Unless Mitigation Incorporated	Impact	

Quality Management Plan for post-construction, the project site would have a less than significant impact for erosion or siltation on or off site.

d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off-site? (Sources: 44, 45)

**Discussion:** The proposed project site is currently developed with the Wardlow school. No stream or river occurs on the property, nor would the course of any stream or river be altered by the project.

As described in the Geotechnical Investigation and Liquefaction Evaluation for the project, the upper 3 to 12 feet of the alluvial soils at the project site contain significant amounts of peat and organic material, which are subject to significant collapse when exposed to moisture infiltration. Thus, the peat soil onsite impacts existing drainage, as moisture causes the peat to collapse. As described in the Preliminary Hydrology Study for the proposed project, the site's current drainage is not consistent with the City's Master Plan because the site's drainage currently splits drainage flow to both the north and south, which is contrary to the approved Master Plan of Drainage. With development of the proposed project, all existing drainage flows to the north to Madeline Drive will be diverted with development of the project so that the drainage patterns will be in a southeasterly direction consistent with the City's Master Plan. Positive over flow is provided with the building pads being set a minimum of one-foot above the over flow elevation; therefore, all proposed residential dwellings are protected from inundation should the storm drain system become inoperable. Additionally, the project is required to detain the flow difference between the existing 25-year and proposed 100-year storms so that runoff from the site is not increased from its current condition. Thus, the project is anticipated to have a less than significant impact in this regard.

e) Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff? (Sources: 45)

**Discussion:** Under pre-project conditions, 53 percent of the project site contains impervious surfaces. With the proposed project, impervious surfaces would be increased to 60 percent of the project site. Tri Pointe homes proposes to construct the Master Plan of Drainage storm drain which will run approximately 605 liner feet beginning from the intersection of Lotus Lane and Gettysburg Drive southward to tie into the existing storm drain in Adams Avenue. The project is required to detain the difference in runoff between the existing 25 year and proposed 100 year flows such that runoff is not increased from existing conditions because the down stream system to which runoff from the project flows (i.e., the existing 54 inch RCP on Adams Avenue) is deficient (see Mitigation Measure HYD-1). Additionally, the proposed project includes a water quality basin onsite, which will treat its "first flush" before being released into the public's downstream storm drain system.

**MM HYD-1:** Prior to the issuance of a grading permit, Hydrology and Hydraulic analysis shall be submitted for Public Works review and approval (10, 25, and 100-year storms shall be analyzed as applicable). The drainage

ISSUES (and Supporting Information Sources):

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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improvements shall be designed and constructed as required by the Department of Public Works to mitigate impact of increased runoff due to development, or deficient, downstream systems. Design of all necessary drainage improvements shall provide mitigation for all rainfall event frequencies up to a 100-year frequency. Runoff shall be limited to existing 25-year flows, which must be established in the hydrology study. If the analysis shows that the City's current drainage system can not meet the volume needs of the project runoff, the developer shall be required to attenuate site runoff to an amount not to exceed the existing 25-year storm as determined by the hydrology study. As an option, the developer may choose to explore low-flow design alternatives, onsite attenuation or detention, or upgrade the City's storm drain system to accommodate the impacts of the new development, at no cost to the City.

With implementation of Mitigation Measure HYD-1 the proposed project is anticipated to have a less than significant impact.

- f) Otherwise substantially degrade water quality?      
 (Sources: 44)

**Discussion:** Implementation of the proposed project would result in short-term water quality impacts during construction activities, and these activities could contribute to significant cumulative impacts on water quality. Project compliance with mandatory National Pollution Discharge Elimination System (NPDES), Storm Water Pollution Prevention Plan (SWPPP), and City of Huntington Beach building standard requirements as well as implementation of the required project-specific Water Quality Management Plan (WQMP) would ensure that all impacts regarding water quality would be less than significant. The required WQMP that has been prepared for the proposed project identifies BMPs designed to reduce impacts to water quality, such as: the biotreatment BMPs of vegetated swales and stormwater planter boxes with underdrains. The project would not otherwise substantially degrade water quality and impacts would be less than significant.

- g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map? (Sources: 1, 32)

**Discussion:** As detailed in the FEMA flood maps for the proposed project site, the site lies within Zone X, which is classified as "other flood areas" and is described as: areas of 0.2 percent annual chance flood; areas of 1 percent annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1 percent annual chance (or 100 year) flood. Additionally, the project site is adjacent to the Talbert Channel, which is classified as "special flood hazard areas subject to inundation by the 1 percent annual chance flood." As detailed in the Preliminary Hydrology Study for the proposed project, positive overflow is provided with the building pads being set a minimum of one foot above the over flow elevation, which would protect all proposed residential dwellings from inundation should the storm drain system become inoperable. However, projects within Zone X are not required to be flood proofed/elevated to satisfy FEMA requirements. As described above the project site falls within Zone X, Other Flood Areas, which includes areas of 1 percent annual chance flood with average depth of less than one foot, therefore due to the building pads being

ISSUES (and Supporting Information Sources):

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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placed a minimum of one foot above the over flow elevation should the storm drain system become inoperable, a less than significant impact is anticipated in this regard.

- h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows? (Sources: 1, 32)

**Discussion:** As described in “g” above, the site lies within Zone X, which is classified as “other flood areas” and is described as: areas of 0.2 percent annual chance flood; areas of 1 percent annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1 percent annual chance (or 100 year) flood. Areas within Zone X are not expected to flood and as such, a less than significant impact is anticipated in this regard.

- i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam? (Sources: 1, 45)

**Discussion:** The project site is not anticipated to be located within an area that may experience flooding as a result of a levee or dam failure. Although the failure of the Prado Dam is identified as a flooding threat to the City of Huntington Beach in the Hazards chapter of the City’s General Plan, a flooding threat would only be realized if this flood control basin were nearly full during an earthquake. The chance of flooding of the project site due to failure of the Prado Dam is low. Additionally, the project site has been designed with the residential pads being set a minimum of one foot above the overflow elevation. Less than significant impacts are anticipated in this regard.

- j) Inundation by seiche, tsunami, or mudflow? (Sources: 1)

**Discussion:** As detailed in the Environmental Hazards Element of the City of Huntington Beach General Plan, tsunamis are long period, seismically generated sea waves caused by sea floor displacements and previous evaluations put the tsunami hazards potential for the City of Huntington Beach at very low. Additionally, per Figure EH-8, the project site is not located in a Moderate Tsunami Run-Up Area.

Per the City’s General Plan, seiches are generated by the sloshing of water in an enclosed or partially enclosed body of water caused by displacement within the water body, or longer period earthquake motions. The project site is adjacent the Talbert Channel, however the channel is neither enclosed nor partially enclosed, and is outside of the Moderate Tsunami Run-Up Area. As a result, the project site will not be detrimentally impacted by a seiche.

Due to the flat nature of the project site, and that it is not within a potentially unstable slope area, per Figure EH-2,

ISSUES (and Supporting Information Sources):

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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in the Environmental Hazards Element of the City of Huntington Beach General Plan, impacts from mudflow are anticipated to be less than significant. Therefore, inundation by seismic seiche, tsunami, or mudflow is anticipated to be less than significant.

- k) Potentially impact stormwater runoff from construction activities? (Sources: 44)

**Discussion:** The project site is subject to the water quality regulations of the Santa Ana Regional Water Quality Control Board (SARWQCB). The SARWQCB is authorized to implement a municipal stormwater permitting program as part of the National Pollutant Discharge Elimination System (NPDES) authority granted under the federal Clean Water Act. The general permit applicable to this project is the "Statewide General Construction Stormwater Permit" which addresses waste discharge requirements for discharges of stormwater runoff associated with construction activities.

Consistent with municipal stormwater NPDES Permit No. CAS618030, issued by the Santa Ana RWQCB, the City of Huntington Beach is required to implement a stormwater pollution prevention plan (SWPPP) to minimize the incidence of construction-related pollutants entering the storm water system. Several items are required in a SWPPP, including the site maps showing drainage and discharge locations and the location of control measures, a description of the pollution prevention best management practices (BMPs) to be implemented on the site, BMP inspection procedures, and requirements for stormwater monitoring. Compliance with these requirements would prevent violation of water quality standards and waste discharge requirements during the construction of the site.

Additionally, a Water Quality Management Plan (WQMP) has been prepared for the project, which is required by the City of Huntington Beach to be prepared prior to construction. The WQMP identifies the Best Management Practices (BMPs) that will be used on the site to control predictable pollutant runoff, including: hydrologic source controls, biotreatment BMPs, treatment control BMPs, non-structural source control BMPs and Structural Source Control BMPs. Implementation of the BMPs identified in the WQMP would assure that stormwater from the project site during project construction and post development (operation) would not detrimentally impact the beneficial uses of receiving waters. As a result, impacts associated with stormwater runoff from construction would be less than significant.

- l) Potentially impact stormwater runoff from post-construction activities? (Sources: 44)

**Discussion:** By implementing the Water Quality Management Plan for post-construction water quality, combined with the requirement for the project to detain the flow difference between the existing 25 year and proposed 100 year storms, runoff from the site will not be increased from its current condition. Therefore, a less than significant impact is anticipated.

ISSUES (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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- |                                                                                                                                                                                                                                                                                                                       |                          |                          |                                     |                          |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|
| m) Result in a potential for discharge of stormwater pollutants from areas of material storage, vehicle or equipment fueling, vehicle or equipment maintenance (including washing), waste handling, hazardous materials handling or storage, delivery areas, loading docks or other outdoor work areas? (Sources: 44) | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|

**Discussion:** The proposed project involves the development of single-family dwellings. Therefore the project site would not contain areas of material storage, vehicle or equipment fueling, vehicle or equipment maintenance, waste handling, hazardous materials handling or storage, delivery areas, loading docks or other outdoor work areas. Per the Water Quality Management Plan for the proposed project, no vehicle wash areas are provided as part of the proposed project.

Although project residents may maintain or wash their vehicles this is anticipated to have a less than significant impact on water quality because each lot will drain and flow through a vegetated swale BMP. Eventually the discharges will drain into a grated inlet and connect to the extended storm drain system along Pioneer Drive and then southerly down Lotus Lane. The vegetated swale will remove pollutants from routine vehicle maintenance and washing and as such, a less than significant impact is anticipated in this regard.

- |                                                                                                                                 |                          |                          |                                     |                          |
|---------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|
| n) Result in the potential for discharge of stormwater to affect the beneficial uses of the receiving waters? (Sources: 44, 45) | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|---------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|

**Discussion:** The project site is subject to the water quality regulations of the Santa Ana Regional Water Quality Control Board (SARWQCB). The SARWQCB is authorized to implement a municipal stormwater permitting program as part of the National Pollutant Discharge Elimination System (NPDES) authority granted under the federal Clean Water Act. The general permit applicable to this project is the "Statewide General Construction Stormwater Permit" which addresses waste discharge requirements for discharges of stormwater runoff associated with construction activities.

Consistent with municipal stormwater NPDES Permit No. CAS618030, issued by the Santa Ana RWQCB, the City of Huntington Beach is required to implement a stormwater pollution prevention plan (SWPPP) to minimize the incidence of construction-related pollutants entering the storm water system. Several items are required in a SWPPP, including the site maps showing drainage and discharge locations and the location of control measures, a description of the pollution prevention best management practices (BMPs) to be implemented on the site, BMP inspection procedures, and requirements for stormwater monitoring. Compliance with these requirements would prevent violation of water quality standards and waste discharge requirements during the construction of the site.

Additionally, prior to construction, the project applicant would be required by the City of Huntington Beach to prepare a water quality management plan (WQMP). The WQMP would identify the Best Management Practices (BMPs) that will be used on the site to control predictable pollutant runoff, including hydrologic source control BMPs, biotreatment BMPs, treatment control BMPs, non-structural source control BMPs and structural source control BMPs. Implementation of the BMPs identified in the WQMP would assure that stormwater from the project site during project construction and post development (operation) would not detrimentally impact the

ISSUES (and Supporting Information Sources):

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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beneficial uses of receiving waters. As a result, impacts associated with this issue would be less than significant.

- o) Create or contribute significant increases in the flow velocity or volume of stormwater runoff to cause environmental harm? (Sources: 44)

**Discussion:** Refer to the discussion in threshold "I" above.

- p) Create or contribute significant increases in erosion of the project site or surrounding areas? (Sources: 44)

**Discussion:** Due to the flat nature of the project site and the lack of hills and steep slopes onsite, the proposed project is not anticipated to create or contribute significant increases in erosion of the project site or surrounding areas. The project consists of constructing 49 single-family homes with associated sewer, storm drain, water, curb, gutter, sidewalk, and street improvements on an 8.35-acre site. Landscaping will be planted on the front, side, and backyards of the homes. Therefore, due to the developed nature that the project site will have upon development of the proposed project, there will not be large expanses of undeveloped land, which could be subject to erosion. Additionally, landscaping onsite will reduce the amount of exposed dirt and soils onsite. Thus, less than significant impacts are anticipated in this regard.

V. **AIR QUALITY.** The city has identified the significance criteria established by the applicable air quality management district as appropriate to make the following determinations. Would the project:

- a) Violate any air quality standard or contribute substantially to an existing or projected air quality violation? (Sources: 63)

**Discussion:** Air quality impacts can be described in a short-term and long-term perspective. Short-term impacts will occur during demolition, site grading, and project construction and consist of fugitive dust and other particulate matter, as well as exhaust emissions generated by construction-related vehicles. Long-term air quality impacts will occur once the project is in operation.

The project will be required to comply with existing South Coast Air Quality Management District (SCAQMD) rules for the reduction of fugitive dust emissions. SCAQMD Rule 403 establishes these procedures. Compliance with this rule is achieved through application of standard best management practices in construction and operation activities, such as application of water or chemical stabilizers to disturbed soils, managing haul road dust by application of water, covering haul vehicles, restricting vehicle speeds on unpaved roads to 15 mph, sweeping loose dirt from paved site access roadways, cessation of construction activity when winds exceed 25 mph and establishing a permanent, stabilizing ground cover on finished sites.

ISSUES (and Supporting Information Sources):

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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Short-term emissions were evaluated using the CalEEMod version 2011.1.1 computer program. The model evaluated emissions resulting from fugitive dust as well as exhaust emissions generated by earthmoving and grading activities, and subsequent painting/coating and paving.

Construction of the project would begin no sooner than December 2012 and last until September 2014. Demolition of the existing school is expected to take approximately 1 month. Grading will occur after demolition. Construction of the model homes, production homes, and water quality basin will occur after grading; painting and paving can occur during construction; therefore, emissions from those phases were added to the emissions from the construction phase. Table 2 below shows the equipment used for each phase of construction.

**Table 2: Construction Phasing Summary**

Phase	Number of workdays	Construction Equipment	Hours/day	HP
1 - Demolition	20	3 excavators	8	157
		1 rubber tired dozer	8	358
		1 concrete/Industrial Saw	8	81
2 - Grading	22	2 tractor/loader/backhoe	8	75
		1 rubber tired dozer	8	358
		1 grader	8	162
		1 excavator	8	157
3a - Construction of Model Homes.	66	1 Crane	8	208
		1 Forklift	8	149
		1 tractor/loader/backhoe	8	75
		1 Generator Set	8	84
		1 Welder	8	46
3b - Construction of Water Quality Basin	23	1 Forklift	8	149
		1 tractor/loader/backhoe	8	75
		1 Generator Set	8	84
		1 Welder	8	46
3c - Construction of Production Homes	284	1 Crane	8	208
		3 Forklifts	8	149
		3 tractor/loader/backhoes	8	75
		1 Generator Set	8	84
		1 Welder	8	46
4 - Paving	81	2 Paving Equipment	8	82
		2 Pavers	8	89
		2 Rollers	8	84
5 - Architectural Coating	112	1 air compressor	6	78

Source: CalEEMod Output.

ISSUES (and Supporting Information Sources):

Potentially Significant Impact      Potentially Significant Unless Mitigation Incorporated      Less Than Significant Impact      No Impact

Table 3 below shows the maximum daily construction emissions during the approximately 1.7 years of construction.

**Table 3: Maximum Daily Construction Emissions**

Activity/Year	Peak Daily Emissions (lb/day)					
	ROG	NO <sub>x</sub>	CO	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Demolition - 2012	7.34	58.24	36.63	0.06	9.20	3.13
Grading - 2013	5.87	45.24	29.05	0.05	5.14	3.73
Construction - 2013 <sup>1</sup>	5.65	37.90	26.51	0.05	2.78	2.48
Paving - 2013	5.62	33.90	21.89	0.03	3.17	2.95
Architectural Coating - 2013	6.66	2.98	2.21	0.00	0.33	0.27
Overlapping construction totals <sup>2</sup>	17.93	74.78	50.61	0.08	6.28	5.70
Construction - 2014	5.20	35.04	26.11	0.05	2.52	2.21
Storm Drain <sup>3</sup>	4.00	33.44	17.06	0.03	3.97	2.79
Overlapping construction totals <sup>3</sup>	9.20	66.49	43.17	0.08	6.49	5.00
Maximum Emissions	17.93	74.78	50.61	0.08	9.20	5.70
<b>SCAQMD Daily Construction Thresholds</b>	<b>75</b>	<b>100</b>	<b>550</b>	<b>150</b>	<b>150</b>	<b>55</b>
<b>Exceeds Threshold?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>

Notes:

- 1 Construction of the production homes will generate more emissions than the construction of the model homes and the water quality basin; therefore, these emissions values are reported.
- 2 Both painting and paving can occur at the same time as construction; therefore, the emissions were added together.
- 3 The timing of the Storm Drain is unknown at this time but could potentially occur during the final stages of construction during 2014; therefore the Storm Drain emissions were added to Construction 2014.

Source: Michael Brandman Associates Air Quality Data

As shown by the results in the Table 3 above, the construction of the project will not exceed SCAQMD's regional thresholds for construction during any year of construction.

The project will entertain installing a detention facility or depression and construct a drain inlet in the northeast corner area of the adjacent Wardlow park to specifications to be determined by the City of Huntington Beach to alleviate the current problem of cross lot drainage and flooding. This will be determined pending the outcome of City staff review of the future storm water flow in the northeast area of Wardlow Park in conjunction with the project's site improvements and the proposed storm drain. Additionally, the project will construct a snack bar/equipment room/public restroom facility on the Wardlow Park grounds in a location determined in working with City staff. Since specifics regarding these improvements are unknown at this time, it would be speculative to include a detailed air quality/greenhouse gas analysis for these improvements. As shown in the tables in the air quality and greenhouse gas sections, the project will not exceed any significance thresholds for air quality or greenhouse gases.

ISSUES (and Supporting Information Sources):

Potentially Significant Impact	Potentially Significant Impact	Potentially Significant Impact	Potentially Significant Impact
	Unless Mitigation Incorporated	Less Than Significant Impact	No Impact

As detailed in the greenhouse gas analysis in this document, the project would generate approximately 1,035.50 MTCO<sub>2</sub>e per year, which is below the SCAQMD draft threshold of 3,000 MTCO<sub>2</sub>e per year. Construction of the detention facility and snack bar/equipment room/public restroom facility would not exceed this threshold because it would result in a fraction of the emissions generated by the proposed project and as such, would not exceed the 3,000 MTCO<sub>2</sub>e threshold. Based on the fact that the project's air quality emissions and greenhouse gas emissions are below significance thresholds, it is anticipated that the generation of emissions from these improvements, due to their limited extent, would have de minimus and less than significant air quality and greenhouse gas impacts.

Per Table 3 above, which shows construction emissions from the project, for nearly all of the emissions types (with the exception of NO<sub>x</sub>), the maximum daily construction emissions could be doubled without exceeding the SCAQMD Daily Construction Thresholds. Therefore, construction of the detention facility and snack bar/equipment room/public restroom facility would not exceed SCAQMD thresholds for these pollutants because it would result in a fraction of the emissions generated by the proposed project. With regards to NO<sub>x</sub> emissions, the entire project results in maximum construction emissions of nearly 75 pounds per day of NO<sub>x</sub>. Given the limited extent of the detention facility and snack bar/equipment room/public restroom facility, compared to the whole project, NO<sub>x</sub> construction emissions from these improvements is anticipated to have a de minimus contribution to NO<sub>x</sub> construction emissions and as such is not anticipated to cause the project to exceed the 100 pounds per day threshold of NO<sub>x</sub> construction emissions. Therefore, these improvements will have a less than significant impact regarding air quality and greenhouse gas emissions.

Table 4 below shows the maximum daily operational emissions from either summer or winter.

**Table 4: Estimated Maximum Daily Operational Emissions**

Activity/Year	Peak Daily Emissions (lb/day)					
	ROG	NO <sub>x</sub>	CO	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Mobile Sources	2.74	5.46	26.46	0.05	5.67	0.41
Energy	0.06	0.52	0.22	0.00	0.04	0.04
Architectural Coating	0.19	—	—	—	—	—
Consumer Product	1.75	—	—	—	—	—
Hearth	5.22	0.24	16.22	0.04	2.59	2.59
Landscaping	0.14	0.05	4.19	0.00	0.02	0.02
Project Total	10.09	6.27	47.09	0.09	8.32	3.06
<b>SCAQMD Daily Operational Thresholds</b>	<b>55</b>	<b>55</b>	<b>550</b>	<b>150</b>	<b>150</b>	<b>55</b>
<b>Exceeds Threshold?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>

Source: CalEEMod Output

As shown by the results in Table 4, the proposed project will not exceed any of the SCAQMD criteria pollutant operational emissions thresholds. The proposed project is anticipated to generate 590 trips per day. Based on the analysis presented below, a CO "hot spots" analysis is not needed to determine whether the change in the level of

ISSUES (and Supporting Information Sources):

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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service (LOS) of an intersection in the project would have the potential to result in exceedances of the CAAQS or NAAQS.

It has long been recognized that CO exceedances are caused by vehicular emissions (USEPA 2000), primarily when idling at intersections (SCAQMD 1993, SCAQMD 2003). Accordingly, vehicle emissions standards have become increasingly more stringent. Before the first vehicle emission regulations, cars in the 1950s were typically emitting about 87 grams of CO per mile (USEPA nd). Since the first regulation of CO emissions from vehicles (model year 1966) in California, vehicle emissions standards for CO applicable to light duty vehicles have decreased by 96 percent for automobiles (NABEES 2008, Kavanaugh 2008), and new cold weather CO standards have been implemented, effective for the 1996 model year (CCR). Currently, the CO standard in California is a maximum of 3.4 grams/mile for passenger cars (with provisions for certain cars to emit even less) (ARB 2010). With the turnover of older vehicles, introduction of cleaner fuels and implementation of control technology on industrial facilities, CO concentrations in the SCAQMD have steadily declined.

The analysis prepared for CO attainment in the South Coast Air Basin by the SCAQMD can be used to assist in evaluating the potential for CO exceedances in the South Coast Air Basin. CO attainment was thoroughly analyzed as part of the SCAQMD's 2003 Air Quality Management Plan (2003 AQMP) and the 1992 Federal Attainment Plan for Carbon Monoxide (1992 CO Plan) (SCAQMD 1992.). As discussed in the 1992 CO Plan, peak carbon monoxide concentrations in the South Coast Air Basin are due to unusual meteorological and topographical conditions, and not due to the impact of particular intersections. Considering the region's unique meteorological conditions and the increasingly stringent CO emissions standards, CO modeling was performed as part of 1992 CO Plan and subsequent plan updates and air quality management plans.

At buildout of the project, the highest peak hour intersection volume would be 1,719 for the 2014 plus project scenario at the intersection of Adams Avenue and Bushard Street (Garland 2012), which is much lower than the values studied by SCAQMD. At buildout of the project, none of the intersections in the vicinity of the proposed project site would have peak hourly traffic volumes exceeding those at the intersections modeled in the 2003 AQMP, nor would there be any reason unique to the local meteorology to conclude that this intersection would yield higher CO concentrations if modeled in detail. Refer to the Air Quality Appendix for the sources listed in the analysis above, which were utilized for the CO hotspot analysis.

Therefore, emissions from both the construction (including demolition of the existing facilities) and operation of the proposed project will not violate any air quality standard or contribute substantially to an existing or projected air quality violation and no CO hotspots are anticipated; impacts are considered to be less than significant.

- b) Expose sensitive receptors to substantial pollutant concentrations? (Sources: 63)

As part of the SCAQMD's environmental justice program, attention has been focused on localized effects of air quality. Staff at SCAQMD has developed localized significance threshold (LST) methodology that can be used by public agencies to determine whether a project may generate significant adverse localized air quality impacts (both short-term and long-term). LSTs represent the maximum emissions from a project that will not cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard, and are developed based on the ambient concentrations of that pollutant for each source receptor area (SRA). The project is located within SRA 18.

**Short-Term Analysis**

ISSUES (and Supporting Information Sources):

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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According to the LST methodology, only onsite emissions need to be analyzed. SCAQMD has provided LST lookup tables and sample construction scenarios to allow users to readily determine if the daily emissions for proposed construction or operational activities could result in significant localized air quality impacts for projects that disturb 5 acres or less per day, which is the case with the proposed project.

The SCAQMD has published a “Fact Sheet for Applying CalEEMod to Localized Significance Thresholds” (South Coast Air Quality Management District 2011b). CalEEMod calculates construction emissions based on the number of equipment hours and the maximum daily disturbance activity possible for each piece of equipment. In order to compare CalEEMod reported emissions against the localized significance threshold lookup tables, the CEQA document should contain in its project design features or its mitigation measures the following parameters:

- 1) The off-road equipment list (including type of equipment, horsepower, and hours of operation) assumed for the day of construction activity with maximum emissions.
- 2) The maximum number of acres disturbed on the peak day using the equipment list from above and the following table from the CalEEMod appendix.

**Table 5: LST Guidance Table from CalEEMod Appendix**

Equipment Type	Acres/8hr-day
Crawler Tractor	0.5
Graders	0.5
Rubber Tired Dozers	0.5
Scrapers	1

- 3) Any emission control devices added onto off-road equipment.
- 4) Specific dust suppression techniques used on the day of construction activity with maximum emissions.

The off-road equipment details are listed in Table 2. The grading phase uses the most equipment of the type listed in Table 6. For the calculation, equipment used corresponds to 1 excavator (crawler tractor), 1 grader, and 1 rubber-tired dozer. Using the CalEEMod table above, the maximum daily acreage disturbed would be 1.5 acres (0.5 + 0.5 + 0.5).

The LST thresholds are estimated using the maximum daily-disturbed area (in acres) and the distance of the project to the nearest sensitive receptors (in meters). The closest sensitive receptors are the existing residences adjacent to the northern and eastern portion of the project site. To ensure a worst-case analysis, the sensitive receptor position of 25 meters (85 feet) was used, which is the closest distance that can be used under the SCAQMD localized significance threshold methodology. The results are summarized below.

ISSUES (and Supporting Information Sources):

Potentially Significant Impact      Potentially Significant Unless Mitigation Incorporated      Less Than Significant Impact      No Impact

**Table 6: LST Results for Daily Construction Emissions**

Pollutant	NO <sub>x</sub> (lbs/day)	CO (lbs/day)	PM <sub>10</sub> (lbs/day)	PM <sub>2.5</sub> (lbs/day)
SRA 18 LST Threshold for 2 acres at 25 meters	115	715	6	4
Demolition	52.13	32.04	3.74	2.84
Grading	45.16	28.18	4.93	3.72
Construction	37.02	24.80	2.43	2.43
Paving/Coating	36.77	22.83	3.2	3.2
Exceeds Threshold?	No	No	No	No
Source: CalEEMod Output				

Emissions from grading/earthwork of a total of 8.3 acres were accounted for in the analysis of the project's air quality impacts. Thus, impacts from truck trips associated with earthwork removal from the project site was accounted for in the emissions analysis for the project. Emissions from construction of the project will be below the localized significance thresholds established by SCAQMD for the project; therefore, the impact is considered less than significant.

**Long-Term Analysis**

This project involves the construction and operation of a residential land use. According to SCAQMD LST methodology, LSTs would apply to the operational phase of a project, if the project includes stationary sources, or attracts mobile sources that may spend long periods queuing and idling at the site; such as warehouse/transfer facilities. The proposed project does not include such uses. Therefore, due to the lack of stationary source emissions, no long-term localized significance threshold analysis is needed.

- c) Create objectionable odors affecting a substantial number of people? (Sources: 63)

**Discussion:** Land uses typically considered associated with odors include wastewater treatment facilities, waste-disposal facilities, or agricultural operations. The project does not contain land uses typically associated with emitting objectionable odors.

Diesel exhaust and VOCs would be emitted during construction of the project, which are objectionable to some; however, emissions would be short-term in duration and disperse rapidly from the project site; therefore, odors should not reach an objectionable level at the nearest sensitive receptors. During construction, certain activities such as laying asphalt pavement, applying paint/protective coatings, and applying some roofing materials, would generate odors that may be noticeable to nearby residents/landowners. Such odors are not unusual in residential areas and last only a matter of a few days. Though noticeable, such odors do not result in significant nuisance or health risk. Due to the residential nature of the proposed project, it is not anticipated that upon project completion there would be activities, materials, or chemicals that would have the potential to cause odor impact affecting a substantial number of people. The impacts are less than significant, and no further analysis is required.

ISSUES (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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- d) Conflict with or obstruct implementation of the applicable air quality plan? (Sources: 63, 64)

**Discussion:** The South Coast Air Quality Management District (SCAQMD) has established the Air Quality Management Plan (AQMP) for the South Coast Air Basin (Basin) to achieve state and federal air quality standards. The AQMP is the primary planning document by which air quality standards and objectives are monitored. Projects that are in compliance with their area's general plan are also considered to be consistent with the air quality plan, as set forth by SCAQMD. The current General Plan land use designation is Public (Residential Low Density) (P (RL)).

The project proponent is requesting a General Plan Amendment to change the site's land use designation to Residential Low Density (RL-7). As the underlying RL designation was already contemplated in the General Plan for the site's long-term use, the project is not considered in conflict with the AQMP. Furthermore, according to the SCAQMD, the project is consistent with the AQMP if the project would not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP. As shown in the responses to V a) and b) above, the implementation of the project will not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations.

Therefore, as the project will not conflict with or obstruct implementation of the air quality plan established for this region, and impacts are considered less than significant.

- e) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)? (Sources: 63)

**Discussion:** The South Coast Air Basin is in non-attainment for ozone, particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>), and nitrogen dioxide, which means that concentrations of those pollutants currently exceed the ambient air quality standards for those pollutants. As shown in the response to V a), the proposed project's emissions would not exceed SCAQMD significance thresholds during either construction or operation of the project for any criteria pollutants. Therefore, impacts associated with a cumulatively considerable net increase of any criteria pollutant would be less than significant.

**VI. TRANSPORTATION/TRAFFIC.** Would the project:

- a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
ISSUES (and Supporting Information Sources):				

performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?  
(Sources: 49)

**Discussion:** A traffic impact analysis was prepared for the proposed 49 unit residential project which established the existing traffic conditions, developed the projected future baseline conditions without the project, estimated the levels of traffic that would be generated by the proposed project, conducted a comparative analysis of traffic conditions with and without the project and identified potential mitigation measures/roadway improvements. Analysis in the traffic impact analysis for the proposed project is based on the weekday morning and afternoon peak hour traffic volumes on the street and intersections in the project vicinity. The levels of service at the following nine intersections were analyzed.

1. Magnolia Street at Garfield Avenue (signalized)
2. Magnolia Street at Yorktown Avenue (signalized)
3. Magnolia Street at Adams Avenue (signalized)
4. Newland Street at Yorktown Avenue (signalized)
5. Newland Street at Adams Avenue (signalized)
6. Bushard Street at Yorktown Avenue (signalized)
7. Bushard Street at Adams Avenue (signalized)
8. Magnolia Street at Pioneer Drive (stop sign on Pioneer Drive)
9. Adams Avenue at Shorewood Circle (stop signs on Shorewood Circle)

Manual traffic counts were originally taken at the nine study area intersections in February and May 2009, during the weekday morning and afternoon peak periods on days when the local schools were in session as well as when baseball games were in progress at Wardlow Park. Subsequently, similar traffic counts were taken in 2012. Both sets of data are in the attached traffic study. The Public Works Department has determined that use of counts from 2009 is more conservative than the use of the 2012 traffic counts, which showed slightly lower vehicle trips.

#### Existing Intersection Levels of Service

Level of service is a qualitative indicator of an intersection's operating conditions that is used to represent various degrees of congestion and delay. It is measured from LOS A (excellent conditions) to LOS F (extreme congestion), with LOS A through D considered to be acceptable per the City of Huntington Beach General Plan.

To quantify the existing baseline traffic conditions, the nine study area intersections were analyzed to determine their operating conditions during the weekday morning and afternoon peak hours. The seven signalized intersections were analyzed by calculating the intersection capacity utilization (ICU) values and corresponding levels of service (LOS), which are based on the peak hour traffic volumes, the turning movement counts, and the existing number of lanes at each intersection.

The levels of service for the two unsignalized intersections were determined by using the Highway Capacity Software's two-way stop methodology, which calculates the average approach delay for vehicles waiting at the

ISSUES (and Supporting Information Sources):

Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Potentially Significant	Potentially Significant	No Impact
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stop signs and relates the delay value to a level of service.

Existing intersection levels of service are shown in Table 7 below.

**Table 7: Existing Intersection Levels of Service**

Intersection	Level of Service	
	AM Peak Hour	PM Peak Hour
<b>SIGNALIZED INTERSECTIONS</b> (ICU value & LOS)		
Magnolia Street at Garfield Avenue	0.593 - A	0.552 - A
Magnolia Street at Yorktown Avenue	0.523 - A	0.556 - A
Magnolia Street at Adams Avenue	0.618 - B	0.749 - C
Newland Street at Yorktown Avenue	0.494 - A	0.555 - A
Newland Street at Adams Avenue	0.471 - A	0.607 - B
Bushard Street at Yorktown Avenue	0.418 - A	0.433 - A
Bushard Street at Adams Avenue	0.593 - A	0.673 - B
<b>UNSIGNALIZED INTERSECTIONS</b> (approach delay in seconds & LOS)		
Magnolia Street at Pioneer Drive Without Baseball Games in Progress	14.8 - B	28.7 - D
With Baseball Games (Weekday)	N/A	26.5 - D
With Baseball Games (Saturday)	N/A	26.7 - D
Adams Avenue at Shorewood Circle	29.1 - D	18.5 - C
Source: Garland Associates. 2012 Traffic Impact Analysis for the Proposed Residential Development at the Wardlow School Site 9191 Pioneer Drive East of Magnolia Street Tract No. 17239. Huntington Beach (May 2012).		

As shown in the table above, all nine of the study area intersections currently operate at acceptable levels of service (LOS A, B, C, or D) during the weekday morning and afternoon peak hours and the Saturday afternoon peak hour.

**Future Baseline Traffic Conditions**

The future baseline traffic conditions without the project for the target year of completion (2014) were estimated by considering the effects of general ambient regional growth and the cumulative increase in traffic volumes that would be generated by other development projects proposed in the vicinity of the project site. To estimate future baseline traffic volumes, the existing traffic volumes were expanded by a factor of two percent, which represents a growth rate of one percent per year for two years. This growth factor accounts for the traffic increases associated with general regional growth and development projects not in the immediate vicinity of the project site. Next, an estimate was made as to the increased levels of traffic that would occur at the study area streets and intersections as a result of the traffic that would be generated by other proposed development projects; i.e., those that are within a one-mile radius of the project site. The list of development projects was obtained from the Huntington Beach Planning and Building Department (“Planning Applications - 2012,” updated February 2012). The volumes of

ISSUES (and Supporting Information Sources):

Potentially Significant Impact      Potentially Significant Unless Mitigation Incorporated      Less Than Significant Impact      No Impact

traffic that would be generated by these projects were estimated for the morning and afternoon peak hours.

The development projects that were included in the cumulative traffic analysis are listed below. As shown, there are three other development projects proposed in the vicinity of the project site:

1. Beach Walk Apartments 19891 Beach Blvd. (west side south of Utica Avenue) 174 units
2. Lamb School Site - Single Family Residential Development 10251 Yorktown Avenue 81 units
3. Hoag Medical Office Building Expansion 19582 Beach Blvd. 52,177 sq. ft.

The estimated volumes of traffic that would be generated by the three proposed development projects are shown in Table 8 below.

**Table 8: Traffic Generated by Other Proposed Development Projects**

Project/ Land Use	Daily Traffic	AM Peak Hour			PM Peak Hour		
		Total	In	Out	Total	In	Out
<b>Trip Generation Rates</b>							
Apartments (per unit)	6.65	0.51	20%	80%	0.62	65%	35%
Single Family Residential (per unit)	12.0	0.75	25%	75%	1.01	63%	37%
Medical Offices (per 1,000 sq. ft.)	36.13	2.30	79%	21%	3.46	27%	73%
<b>Generated Traffic</b>							
1. Beach Walk Apartments (174 units)	1,160	89	18	71	108	70	38
2. Lamb Residential (81 units)	970	61	15	46	82	52	30
3. Hoag Med Offices (52,177 sq. ft.)	1,890	120	95	25	181	49	132
<b>TOTAL</b>	<b>4,020</b>	<b>270</b>	<b>128</b>	<b>142</b>	<b>371</b>	<b>171</b>	<b>200</b>
Source: Garland Traffic Report, May 2012.							

The table above shows the trip generation rates for each land use type and the volumes of traffic that each project would generate during the peak hours on a typical weekday. The table indicates that the projects, in total, would generate an estimated 270 vehicle trips during the morning peak hour (128 inbound and 142 outbound), 371 trips during the afternoon peak hour (171 inbound and 200 outbound), and 4,020 vehicle trips per day. The trip generation rates shown in the table above are from the Institute of Transportation Engineers Trip Generation manual (8th Edition, 2008), except that the daily rate for the single family residential use is 12.0 trips per unit instead of the manual's rate of 9.57 trips per unit. Use of the 12.0 trips per unit daily rate represents a highly conservative daily trip factor.

**Project Generated Traffic**

The volumes of traffic that would be generated by the proposed project were determined to estimate the impacts of the project on the study area streets and intersections. Table 9 below shows the estimated volume of project generated traffic for an average weekday and for the morning and afternoon peak hours for the proposed 49-unit residential development. The trip generation rates (vehicle trips per dwelling unit) represent values from the

ISSUES (and Supporting Information Sources):

Potentially Significant Impact      Potentially Significant Unless Mitigation Incorporated      Less Than Significant Impact      No Impact

Institute of Transportation Engineers Trip Generation manual (8th Edition, 2008) for the single-family detached housing residential land use category, except that the daily rate for the single family residential use is the more conservative 12.0 trips per unit daily rate. Regardless of which daily trip rate is used, the proposed project results in less than significant impacts, as described below. For purposes of comparison, the table below also shows the estimated volumes of traffic that were generated by the elementary school that formerly occupied the project site.

**Table 9: Project Generated Traffic**

Land Use	AM Peak Hour			PM Peak Hour			Daily Traffic
	Total	In	Out	Total	In	Out	
<b>Trip Generation Rates</b>							
Single Family Residential (trips per dwelling unit)	0.75	25%	75%	1.01	63%	37%	12.0
Elementary School (trips per student)	0.45	55%	45%	0.28	45%	55%	1.29
<b>Project Generated Traffic</b>							
Wardlow Residential Project (49 units)	37	9	28	49	31	18	590
Former Wardlow School (650 students)	293	161	132	182	82	100	840
Source: Garland Associates. 2012 Traffic Impact Analysis for the Proposed Residential Development at the Wardlow School Site 9191 Pioneer Drive East of Magnolia Street Tract No. 17239. Huntington Beach (May 2012).							

The table above shows that the proposed residential development would generate 37 vehicle trips during the morning peak hour (9 inbound and 28 outbound), 49 trips during the afternoon peak hour (31 inbound and 18 outbound), and a total of 590 vehicle trips per day using the conservative 12.0 per unit daily trip rate. As a comparison, the former elementary school generated 293 trips during the morning peak hour, 182 trips during the afternoon peak hour, and 840 trips per day. The proposed residential development would, therefore, generate less traffic than the former elementary school use.

With existing conditions, no traffic is generated from the project site. Addition of the proposed project would increase traffic compared to existing conditions (i.e., 590 daily trips), but as detailed below less than significant traffic impacts are anticipated from the proposed project.

**Significance Criteria**

Per the City of Huntington Beach General Plan, a transportation impact at a signalized intersection shall be deemed significant in accordance with the following criteria: For levels of service E and F, final ICU value is > 0.900 and project-related increases in ICU are equal to or greater than 0.010 Although the City does not have adopted significance criteria for unsignalized intersections, it has been assumed that an unsignalized intersection would be significantly impacted if the project would change the level of service from an acceptable LOS A through D to an unacceptable LOS E or F. The intersection would not be significantly impacted if the intersection's level of service would remain at LOS D or better.

ISSUES (and Supporting Information Sources):

Potentially Significant Impact      Potentially Significant Unless Mitigation Incorporated      Less Than Significant Impact      No Impact

**Intersection Impact Analysis**

An analysis of traffic impacts was conducted by quantifying the before-and-after traffic volumes, then determining the ICU values, average delay values, and levels of service at the study area intersections for the “without project” and “with project” scenarios. The before-and-after ICU values (for the signalized intersections), delay values (for the intersections with stop signs), and levels of service at each of the study area intersections are summarized in Table 10 for the morning peak hour and Table 11 for the afternoon peak hour. The tables show the existing traffic conditions, the existing plus project conditions, the future baseline traffic conditions without the project for the year 2014, the 2014 traffic conditions with the addition of the project traffic, and the change in ICU values and average delay values associated with the project. The last columns of in each of the tables below indicate if the intersection would be significantly impacted by the proposed project. As shown, the proposed residential project would not have a significant impact at any of the study area intersections during the morning or afternoon peak hours.

**Table 10: Project Impact on Intersection Levels of Service - AM Peak Hour**

Intersection	Level of Service					Significant Impact
	Existing Conditions	Existing Plus Project	2014 Without Project	2014 With Project	Project Impact	
<b>SIGNALIZED INTERSECTIONS (ICU value &amp; LOS)</b>						
Magnolia/Garfield	0.593 - A	0.596 - A	0.609 - B	0.612 - B	0.003	No
Magnolia/Yorktown	0.523 - A	0.527 - A	0.542 - A	0.546 - A	0.004	No
Magnolia/Adams	0.618 - B	0.620 - B	0.633 - B	0.635 - B	0.002	No
Newland/Yorktown	0.494 - A	0.496 - A	0.515 - A	0.517 - A	0.002	No
Newland/Adams	0.471 - A	0.471 - A	0.483 - A	0.483 - A	0.000	No
Bushard/Yorktown	0.418 - A	0.419 - A	0.429 - A	0.430 - A	0.001	No
Bushard/Adams	0.593 - A	0.594 - A	0.607 - B	0.607 - B	0.000	No
<b>UNSIGNALIZED INTERSECTIONS (average vehicle delay in seconds &amp; LOS)</b>						
Magnolia/Pioneer	14.8 - B	16.7 - C	15.0 - C	17.1 - C	2.1	No
Adams/Shorewood	29.1 - D	29.7 - D	31.6 - D	31.9 - D	0.3	No
Source: Garland Associates. 2012 Traffic Impact Analysis for the Proposed Residential Development at the Wardlow School Site 9191 Pioneer Drive East of Magnolia Street Tract No. 17239. Huntington Beach (May 2012).						

The table above shows that the intersection of Magnolia Street at Garfield Avenue, for example, would operate at an ICU value of 0.593 and LOS A for existing conditions during the AM peak hour and at an ICU value of 0.596 and LOS A for the existing plus project scenario. The table shows that this intersection would operate at an ICU value of 0.609 and LOS B for the year 2014 without project scenario and at an ICU value of 0.612 and LOS B in 2014 with the project, which represents an increase in the ICU value of 0.003. The last column indicates that the intersection would not be significantly impacted.

It should be noted that the traffic impact analysis is based on the traffic that would be generated by the 49 proposed residential units. Although Wardlow Park is located adjacent to the project site, the park would not

ISSUES (and Supporting Information Sources):

Potentially Significant Impact      Potentially Significant Unless Mitigation Incorporated      Less Than Significant Impact      No Impact

result in an increase in traffic volumes because it is an existing recreational facility that would continue operating under current conditions regardless of the status of the proposed residential development project. As shown in the table below, the intersection of Magnolia Street and Pioneer Drive was evaluated for typical conditions (without a baseball game) and for times when baseball games were occurring at Wardlow Park. Weekday afternoon and Saturday afternoon time periods were addressed in the analysis.

**Table 11: Project Impact on Intersection Levels of Service - PM Peak Hour**

Intersection	Level of Service					
	Existing Conditions	Existing Plus Project	2014 Without Project	2014 With Project	Project Impact	Significant Impact
<b>SIGNALIZED INTERSECTIONS</b> (ICU value & LOS)						
Magnolia/Garfield	0.552 - A	0.556 - A	0.568 - A	0.570 - A	0.002	No
Magnolia/Yorktown	0.556 - A	0.566 - A	0.576 - A	0.585 - A	0.009	No
Magnolia/Adams	0.749 - C	0.754 - C	0.767 - C	0.772 - C	0.005	No
Newland/Yorktown	0.555 - A	0.556 - A	0.581 - A	0.582 - A	0.001	No
Newland/Adams	0.607 - B	0.609 - B	0.624 - B	0.624 - B	0.000	No
Bushard/Yorktown	0.433 - A	0.435 - A	0.445 - A	0.446 - A	0.001	No
Bushard/Adams	0.673 - B	0.673 - B	0.688 - B	0.689 - B	0.001	No
<b>UNSIGNALIZED INTERSECTIONS</b> (average vehicle delay in seconds & LOS)						
Magnolia/Pioneer Without Baseball	28.7 - D	32.7 - D	30.1 - D	34.9 - D	4.8	No
W Baseball (Weekday)	26.5 - D	31.8 - D	28.3 - D	34.3 - D	6.0	No
W Baseball (Saturday)	26.7 - D	32.6 - D	28.5 - D	34.9 - D	6.4	No
Adams/Shorewood	18.5 - C	18.6 - C	19.1 - C	19.1 - C	0.0	No
Source: Garland Associates. 2012 Traffic Impact Analysis for the Proposed Residential Development at the Wardlow School Site 9191 Pioneer Drive East of Magnolia Street Tract No. 17239. Huntington Beach (May 2012).						

Both Table 10 and Table 11 immediately above indicate that none of the study area intersections would be significantly impacted by the project and that all of the intersections would continue to operate at acceptable conditions (LOS A through D) during the AM and PM peak hours for the existing conditions and year 2014 analysis scenarios. Thus, the proposed project would have a less than significant impact regarding traffic through the year 2014.

**Year 2030 Analysis**

An analysis has been conducted to determine the impacts of the project on the intersection levels of service for the long-range future (year 2030) scenario. The project-generated traffic was added to the projected baseline traffic volumes and the levels of service were re-calculated to quantify the project's impacts at each intersection. The results of the 2030 analysis are shown in Table 12 below.

ISSUES (and Supporting Information Sources):

Potentially Significant Impact      Potentially Significant Unless Mitigation Incorporated      Less Than Significant Impact      No Impact

**Table 12: Project Impact on Year 2030 Intersection Levels of Service**

Intersection	Year 2030 ICU Values & Levels of Service			
	Without Project	With Project	Project Impact	Significant Impact
<b>AM PEAK HOUR</b>				
Magnolia/Garfield	0.73 – C	0.73 – C	0.00	No
Magnolia/Yorktown	0.65 – B	0.65 – B	0.00	No
Magnolia/Adams	0.88 – D	0.88 – D	0.00	No
Newland/Yorktown	0.70 – C	0.70 – C	0.00	No
Newland/Adams	0.68 – B	0.68 – B	0.00	No
Bushard/Yorktown	0.64 – B	0.64 – B	0.00	No
Bushard/Adams	0.77 – C	0.77 – C	0.00	No
<b>PM PEAK HOUR</b>				
Magnolia/Garfield	0.79 – C	0.79 – C	0.00	No
Magnolia/Yorktown	0.65 – B	0.65 – B	0.00	No
Magnolia/Adams	0.81 – D	0.81 – D	0.00	No
Newland/Yorktown	0.86 – D	0.86 – D	0.00	No
Newland/Adams	0.73 – C	0.73 – C	0.00	No
Bushard/Yorktown	0.64 – B	0.64 – B	0.00	No
Bushard/Adams	0.82 – D	0.82 – D	0.00	No
Source: Garland Traffic Report, May 2012.				

As shown in the table above, the project would not result in a significant impact at any of the study area intersections for the year 2030 analysis scenario. Therefore, less than significant traffic impacts are anticipated as a result of the proposed project.

**Signal Warrant Analysis**

A signal warrant analysis was conducted to determine if a traffic signal would be justified at the intersection of Magnolia Street and Pioneer Drive. The signal warrant worksheets for the AM and PM peak hours are provided as an appendix to the Traffic Impact Analysis, for the year 2014 scenario with the proposed project. As the plot of the major street (Magnolia Street) and minor street (Pioneer Drive) traffic volumes falls below the curves on the charts, a traffic signal would not be warranted at this intersection.

ISSUES (and Supporting Information Sources):

Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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- b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways? (Sources: 50)
- |                          |                          |                                     |                          |
|--------------------------|--------------------------|-------------------------------------|--------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|--------------------------|--------------------------|-------------------------------------|--------------------------|

**Discussion:** The Orange County Transportation Authority (OCTA) is the County's designated Congestion Management Agency (OCTA CMP). The OCTA is responsible for developing the Orange County Congestion Management Program (CMP). The goals of Orange County's CMP are to support regional mobility and air quality objectives by reducing traffic congestion; to provide a mechanism for coordinating land use and development decisions that support the regional economy; and to determine gas tax fund eligibility. The Orange County CMP states that since 1994, the selected traffic impact analysis process has been consistently applied to all development projects meeting the adopted trip generation thresholds (i.e., 2,400 or more daily trips for projects adjacent to the Congestion Management Program Highway System (CMPHS), and 1,600 or more daily trips for projects that directly access the CMPHS). The project is estimated to generate 590 trips per day. Thus, no CMP traffic impact analysis is required for the proposed project. Therefore, a less than significant impact is anticipated in this regard.

- c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks? (Sources: 24)
- |                          |                          |                          |                                     |
|--------------------------|--------------------------|--------------------------|-------------------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--------------------------|--------------------------|--------------------------|-------------------------------------|

**Discussion:** As detailed on AirNav.com, there are no airports or airstrips in the City of Huntington Beach. The nearest public airport is John Wayne Airport located approximately 5.5 miles from the project site. The proposed project involves the construction of 49 2-story single-family residences that would not impact air traffic patterns. Therefore, the project will have no impact in this regard.

- d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses? (Sources: 28)
- |                          |                          |                                     |                          |
|--------------------------|--------------------------|-------------------------------------|--------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|--------------------------|--------------------------|-------------------------------------|--------------------------|

**Discussion:** The project will be designed to conform to street standards and comply with all public safety requirements for emergency access, including police, fire, and emergency medical services. An emergency secondary ingress/egress access gate is proposed to the north side of the proposed 80-space parking lot. The proposed project will be reviewed by the City of Huntington Beach Fire and Police Departments related to emergency vehicle access, as well as fire suppression and emergency notification systems. Thus, the proposed project is anticipated to have a less than significant impact in this regard.

ISSUES (and Supporting Information Sources):

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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e) Result in inadequate emergency access? (Sources: 28)

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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**Discussion:** Project construction and internal circulation will comply with all relevant fire codes and is subject to site plan review and approval from the Huntington Beach Fire and Police Departments. Thus, impacts related to emergency access for the proposed project will be less than significant.

f) Result in inadequate parking capacity? (Sources: 49)

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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**Discussion:** The Wardlow School site currently has a total of 70 striped parking spaces, which is comprised of 42 spaces in the lot adjacent to the Wardlow Park ball fields and 28 spaces in the lot in front of the school buildings. The school site currently provides all off-street parking opportunities for patrons of Wardlow Park (See Attachment No. 4). These 70 parking spaces would be displaced as a result of the proposed development. To compensate for the loss of these existing parking spaces currently available to park users, the project would provide 80 spaces in a parking lot at the southwest corner of the project site. This parking lot would be available to patrons of Wardlow Park.

During peak events at the Park, the observed peak parking demand was 192 vehicles. Peak park event observations indicate that 94 vehicles currently park on the nearby streets: Pioneer Drive, Gettysburg Drive, Magnolia Street, and Madeline Drive, and 98 vehicles were observed stacking within the existing two parking lots on the Wardlow school site. Although there are only 70 striped spaces, vehicles are parking on unmarked pavement and/or grass areas. The proposed project would construct an 80-space parking lot, which would require the remaining 112 vehicles to park on neighboring streets during the peak event periods compared with existing conditions. This represents an increase of 18 vehicles that would park on-street during the peak periods. The proposed project does not eliminate any existing on street parking and moreover provides 64 on-street parking spaces. Therefore, the project streets accommodate the additional 18 vehicles. The parking demands that would be generated by the proposed residential development would be accommodated within the project boundaries in the private garages and driveways and along the internal streets. Although the project is proposed as a Planned Unit Development with private streets, governed by CC&Rs and a homeowners association board of directors, language will be placed in the CC&Rs specifically allowing and guaranteeing the ongoing ability of the general public to park on and use the private streets within the project. Project impacts regarding parking would be less than significant.

g) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities? (Sources: 1, 29, 30)

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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**Discussion:** Pedestrian access to the project site is available from Pioneer Drive. Development of the project would eliminate the pedestrian access-way that currently exists along the northern property line of the project site. However, because there is alternative access to the project site and Wardlow Park via Magnolia Avenue and Pioneer drive, the project will have less than significant impacts in this regard. Existing Class II bicycle trails are located along Magnolia Street, west of the project site; along Yorktown Avenue, north of the site and along Bushard Street east of the project site. The majority of bike routes in the City of Huntington Beach are Class II lanes, which are striped lanes for one-way travel. The project is located near the Magnolia/Pioneer Orange County

ISSUES (and Supporting Information Sources):

Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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Transportation Authority (OCTA) bus route 33 along Magnolia Avenue, located just west of the project site, with a bus stop at the intersection of Pioneer Drive and Magnolia Street. As pedestrian access would be available in the project vicinity, including but not limited to Pioneer Drive, Lotus Lane and Adams Avenue, the project would not conflict with adopted policies, plans, or programs of public transit, bicycle or pedestrian facilities in the vicinity.

During project construction, approximately 100,000 cubic yards of soil transport would occur, per City of Huntington Beach estimates. Truck trips related to earthwork and soils transport will be temporary in nature, will cease after completion of project construction, and will comply with City of Huntington Beach Public Works Department requirements for material removal and offsite hauling. As such, no construction traffic conflict with adopted policies, plans or programs of the City would occur.

**VII. BIOLOGICAL RESOURCES.** Would the project:

- a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? (Sources: 60)
- 

**Discussion:** The project is located on the site of the former Wardlow School in the City of Huntington Beach. Onsite features include six school buildings, basketball courts, grass-covered areas, athletic fields, and school parking lot. Established trees such as eucalyptus, pine and other varieties are located onsite. The mature trees onsite range from approximately 10 to 30 feet high. In addition to trees, the site also has non-native ornamental landscape vegetation. Due to the urban/developed setting, the site does not contain riparian habitat, sensitive natural vegetation, protected wetlands, or jurisdictional waters. Vegetation on the project site primarily consists of mature trees, ornamental bushes and the grass/athletic fields. Ornamental landscaping onsite provides minimal habitat to those species that have adopted to urban settings. The project site has the potential to provide roosting and nesting sites for raptors and migratory birds. The project site within an urbanized setting is unlikely to provide habitat for candidate, sensitive or special status species. However, the project site currently contains existing large mature trees that provide suitable nesting habitat for a number of migratory birds, such as California towhee, Anna’s hummingbird, American crow, and bushtit. As a result, Mitigation Measure BIO-1 below should be implemented to reduce any potential impacts to bird species.

**MM BIO-1:** Prior to ground disturbance, the applicant shall provide the City of Huntington Beach proof that a certified biologist has been retained to determine if nesting birds are present within the Project footprint or within a 250-foot buffer around the site. If nesting birds are present, construction activity shall be avoided in the area until nesting activity is complete (generally February 1 to August 31), as determined by the biologist. If ground or vegetation disturbance would occur between February and August, a preconstruction nesting bird survey shall be conducted seven days prior to any ground or vegetation disturbance. Any active nests identified shall have a buffer area established within a 100-foot radius (200 foot for birds of prey) of the active nest. Disturbance shall not occur within the buffer area until the biologist determines that the young have fledged. Construction activity may occur within the buffer area at the discretion of the biological monitor.

Implementation of the above mitigation measure will reduce project impacts to a less than significant level.

- b) Have a substantial adverse effect on any riparian habitat

ISSUES (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or US Fish and Wildlife Service? (Sources: 1)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Discussion:** The project site and surrounding residential area are devoid of riparian habitat and any sensitive natural community. As detailed in Figure ERC-2 of the City's General Plan, the project site does not contain any generalized habitat areas. Therefore, no impact is anticipated to occur in this regard.

c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? (Sources: 1, 30)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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**Discussion:** The project site is fully developed with a school and the surrounding area is developed with residential housing and as such, no natural hydrologic features or federally protected wetlands as defined by Section 404 of the Clean Water Act occur onsite or in the project vicinity. Therefore, no direct removal, filling, or hydrological interruption of a wetland area would occur with development of the project site. Therefore, no impact would occur, and no further study of this issue is required.

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites? (Sources: 1)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------	--------------------------	--------------------------	-------------------------------------

**Discussion:** The proposed project is currently developed with a school. Although the project site is located adjacent to the Talbert Channel, development of the proposed project will not modify the channel in any way. Therefore, the proposed project would not interfere with the movement of any migratory fish that may be present in the channel. Additionally, per the City of Huntington Beach General Plan, there are no established native residents or migratory wildlife corridors identified in the City and thus, there are none existing within or adjacent to the project site. The project site is not located in any of the generalized habitat areas identified in Figure ERC-2 of the City of Huntington Beach General Plan, including: freshwater marsh and associated habitat, coastal salt marsh, grassland, coast sand dunes and open water/marine. Thus, implementation of the project would not impact movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, nor would the project impede the use of native wildlife nursery sites. No impact would occur, and no further study of this issue is required.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? (Sources: 1, 33)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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ISSUES (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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**Discussion:** The project would be required to comply with Chapter 13.50, Regulation of Trees, of the City of Huntington Beach Municipal Code, regarding trees located on streets, parkways or public places within the City. In addition, the project will comply with local policies of the City with regard to tree removal and replacement. Therefore the proposed project is anticipated to have a less than significant impact with adherence to City of Huntington Beach policies and ordinances.

- |                                                                                                                                                                                                           |                          |                          |                          |                                     |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|
| f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan? (Sources: 1, 31, 34) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|

**Discussion:** The project site is located in a developed area in the City of Huntington Beach. No habitat conservation plans (HCPs) or natural community conservation plans (NCCPs) are identified in the City of Huntington Beach General Plan as such no HCPs or NCCPs are applicable to the project site or project vicinity. Therefore, no impacts would occur in this regard.

**VIII. MINERAL RESOURCES.** Would the project:

- |                                                                                                                                                     |                          |                          |                          |                                     |
|-----------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state? (Sources: 1) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|-----------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|

**Discussion:** As detailed in the City of Huntington Beach General Plan, the City has been the site of the extraction of oil and gas, sand and gravel, and peat products over many years. Large-scale oil and gas production has occurred since the 1920s and is currently occurring.

The project site is currently a closed school site. Mineral extraction activities are not present onsite. Both the project site and the surrounding area are not identified in the City of Huntington Beach General Plan as sources of important mineral resources. Therefore, no impacts on mineral resources are anticipated.

- |                                                                                                                                                                                        |                          |                          |                          |                                     |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|
| b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan? (Sources: 1, 2) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|

**Discussion:** As described above, the project site is currently a closed school site. Mineral extraction activities are not present onsite. Both the project site and the surrounding area are not identified in the City of Huntington Beach General Plan as sources of important mineral resources. Additionally, the project site is not identified in the City's Zoning Map as being within an Oil Production Overlay District, which relates to areas that accommodate oil operations. Therefore, no impacts on mineral resources are anticipated.

ISSUES (and Supporting Information Sources):

Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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**IX, HAZARDS AND HAZARDOUS MATERIALS.** Would the project:

- a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? (Sources: 42, 66)

**Discussion:** The proposed occupation and operation of the project site as a residential use would not involve the routine transport, use, or disposal of hazardous materials in any significant quantities. Although small amounts of hazardous materials may be used during construction, the long-term occupation and operation of the site as a residential development, including the generation of hazardous materials in the form of household cleaning products, is not expected to result in the use of hazardous materials in any significant quantity or concentrations that would pose a significant hazard to the public or the environment. Therefore the project is anticipated to have a less than significant impact in this regard.

- b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment? (Sources: 66)

**Discussion:** The potential for upset or accidental release of hazardous materials is discussed in relation to several recognized environmental conditions at the project site in this section.

**Agricultural Chemicals.** As detailed in the Phase I Environmental Site Assessment (ESA), the review of aerial photographs of the project site indicate the site was used for agricultural purposes prior to construction of the school in 1964. As a result, the possibility exists that agricultural chemicals remain in near surface soils and that future occupants of the project site may be exposed to these chemicals.

To address this possibility, it is recommended that further sampling of the near surface soil take place to determine if any agricultural chemicals (herbicides, insecticides, pesticides, and metals) remain at the project site from past agricultural use. Mitigation is recommended to reduce this potentially significant impact to a less than significant level.

**MM HAZ-1:** Prior to issuance of a grading permit, the project applicant shall have a soils survey conducted for the proposed project site to determine if any agricultural chemicals (herbicides, insecticides, pesticides and metals) remain at the project site from past agricultural use. The applicant shall implement the mitigation recommendations in the soils report.

With implementation of Mitigation Measure HAZ-1 above, potential impacts associated with exposure to agricultural chemicals are reduced to a less than significant level.

**Polychlorinated Biphenyls (PCB).** Given the pre-1979 date of development of the subject site, the presence of fluids containing PCBs was considered in the Phase I ESA. Several pole-mounted transformers were observed on the south side of the project site on Pioneer Drive. However, as no leakage or staining is visible on or around the transformers, no action is required based on visual observations and a less than significant impact with regard to PCBs is anticipated. Within the school building, all light ballasts found not to have the "No PCBs" labels,

ISSUES (and Supporting Information Sources):

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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thermostats with mercury tubes and all fluorescent light tubes must be either recycled or disposed of according to local, state, and federal regulations.

**Asbestos-Containing Materials and Lead-Based Paint.** The former school buildings located at the proposed project site include asbestos-containing materials and lead-based paint. Without adherence to federal and state regulations, demolition and removal of the existing building could result in the release of hazardous materials. Survey and sampling results for these recognized environmental conditions is summarized below:

**Asbestos** - Given the pre-1981 construction date of the school buildings onsite, some of the building materials were suspected of containing asbestos. At the time of the inspection, all of the materials appeared to be intact and undisturbed, and in good condition. Bulk samples of materials from identified areas containing suspect asbestos-containing materials (ACM) were collected and analyzed in accordance with methodology approved by the U.S. Environmental Protection Agency. A total of 103 suspect asbestos containing material bulk samples were identified and collected for analysis during the survey. The asbestos materials found onsite are classified as non-friable material (meaning that the asbestos fibers are bound/locked into the product matrix, so that fibers are not readily released).

**Lead-Based Paint** - Given the pre-1979 construction date of the school buildings onsite, the past use of lead-based paints was suspected. The State of California, Department of Housing and Urban Development (HUD), and the Environmental Protection Agency define Lead Based Paint as paint or other surface coating with lead content equal to or greater than 1.0 mg/cm<sup>2</sup> of surface area by X-Ray Fluorescence (XRF) or 5,000 parts per million (ppm) by paint chip analysis. The project site survey found that components tested (i.e., doorjamb, window frames, walls etcetera) have coatings with lead concentrations greater than 1.0 mg/cm<sup>2</sup> as determined by XRF testing.

Prior to demolition, abatement of asbestos-containing materials and removal of lead-based paint containing materials will be required in accordance with current federal and state regulations and recommendations of the Asbestos and Lead Survey Report for the Wardlow Elementary School Site (Focus Environmental Consulting, LLC 3/30/12). Therefore, impacts would be less than significant.

Use of any hazardous materials during construction activities would be conducted in compliance with all applicable federal, State, and local regulations. With implementation of MM HAZ-1 above, impacts related to reasonably foreseeable upset and accident conditions involving the release of hazardous materials would be less than significant.

- c) Emit hazardous emissions or handle hazardous or acutely hazardous material, substances, or waste within one-quarter mile of an existing or proposed school?      
 (Sources: 30)

**Discussion:** The project site is not located within 0.25 mile of an existing or proposed school. Margy's Daycare, a private daycare facility that appears to be run out of a single family home, is located approximately .13 mile south of the project site. Although a small amount of hazardous materials may be used during construction, the proposed residential development is not expected to emit hazardous emissions or handle hazardous or acutely hazardous materials, substance, or waste in sufficient quantity and concentrations to pose a significant hazard to the public or the environment. Use of any hazardous materials during construction would be conducted in compliance with all applicable federal, State, and local regulations. Therefore, impacts in this regard would be less than significant.

ISSUES (and Supporting Information Sources):

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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- d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment? (Sources: 42)
- 

**Discussion:** As detailed in the Phase I Environmental Site Assessment (ESA) prepared for the project site, the proposed project is not listed on the Cortese list, which is a planning document used by the State, local agencies and developers to comply with the California Environmental Quality Act requirements in providing information about the location of hazardous materials release sites. The Phase I ESA stated that a review of the computer-generated, environmental records search document (included in Appendix D of the Phase I ESA) found the project site is not a regulatory-listed site. Additionally, there were no sites found that were: (1) located within 0.25 mile of the subject site or (2) are sites that are further than 0.25 mile but still pose a concern to the project site. Due to the fact that the project site is not a regulatory-listed site, there are no impacts in this regard.

- e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area? (Sources: 42, 25, 26, 27)
- 

**Discussion:** Airport Environs Land Use Plans (AELUPs) exist for each of the airports in Orange County, which include John Wayne Airport, Fullerton Municipal Airport, and Joint Forces Training Base Los Alamitos. Additionally, there is an AELUP for Heliports. As detailed on AirNav.com and in the AELUP for Heliports, although there are no airports or airstrips in the City of Huntington Beach, there are several heliports. The nearest heliport is the Civic Center Heliport, located approximately 1.8 miles from the project site. The proposed project involves the construction of 49 two-story single-family residences, which is not anticipated to impact heliports in the City because the AELUP notification area for heliports is a 5,000 foot radius around the heliport and the proposed project's distance is approximately 1.8 miles (approximately 9,500 feet).

The northern part of the City of Huntington Beach is within the AELUP for the Joint Forces Training Base Los Alamitos. However, the project is approximately 9 miles from the base and is not located within the AELUP area for the Joint Forces Training Base. Therefore, impacts from the Base and impacts to the project resulting from potential aircraft safety hazards would be less than significant.

- f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area? (Sources: 42)
- 

**Discussion:** As detailed on AirNav.com, there are no airports or airstrips in the City of Huntington Beach. The nearest public airport is John Wayne Airport located approximately 5.5 miles from the project site. The proposed project involves the construction of 49 2-story single-family residences and, as such, would not impact air traffic

ISSUES (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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patterns.

- |                                                                                                                                        |                          |                          |                          |                                     |
|----------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|
| g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? (Sources: 1) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|----------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|

**Discussion:** The project includes vehicular and emergency vehicle access from Pioneer Drive to an internal loop road to service all areas of the proposed project. Compliance with City of Huntington Beach Fire Department codes, regulations, and conditions will ensure that implementation of the proposed project will not interfere or impair an adopted emergency response plan or emergency evacuation plan. Therefore, no impacts are anticipated in this regard.

- |                                                                                                                                                                                                                                    |                          |                          |                          |                                     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|
| h) Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands? (Sources: 1) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|

**Discussion:** The proposed project is located in an urbanized area and is surrounded by residential developments and is adjacent to Wardlow Park and ball fields. Therefore, the proposed project would not expose people or structures to significant risk of loss, injury, or death involving wildland fires. No wildland fire impacts would occur.

**X. NOISE.** Would the project result in:

- |                                                                                                                                                                                                              |                          |                          |                                     |                          |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|
| a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? (Sources: 1, 14, 65, 68) | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|

**Discussion:** As described below, both short-term construction noise and long-term operational noise from the proposed project are anticipated to be less than significant. Noise monitoring was performed using a standard specification sound level meter and microphone, which was placed approximately five feet above the ground. The noise monitoring locations were selected in order to obtain noise measurements of the current noise sources impacting the project site and the project vicinity, and to provide a baseline for any potential noise impacts that may be created by development of the proposed project. The sites are shown in Appendix C, which includes a photographic index of the study area and noise level measurement locations.

The noise measurements were taken at four (4) locations at the project site. The results of the noise level measurements are provided below in Table 13, and further discussed in this section.

ISSUES (and Supporting Information Sources):

Potentially Significant Impact      Potentially Significant Unless Mitigation Incorporated      Less Than Significant Impact      No Impact

**Table 13: Existing Noise Level Measurements**

Site Location	Description	L <sub>eq</sub>	L <sub>MAX</sub>	L <sub>MIN</sub>
Site 1	10 feet from the southeast corner of the project site on the walkway.	51.2	64.6	43.4
Site 2	Just outside of the southern boundary of the project site on the public right-of-way (sidewalk), approximately halfway between the southeast corner of the site and the southwest corner of the park space.	58.0	70.4	46.2
Site 3	10 feet from the northern boundary of the project site on the turf field, approximately halfway between the northeast corner of the site and northwest corner of the park space.	51.2	63.9	45.3
Site 4	On the western boundary of the park space adjacent to the public right-of-way (sidewalk), approximately 200 feet from the northwest corner of the park space.	71.1	84.5	47.1

Note:

The noise measurements were recorded between 12:19 hours and 13:33 hours on Tuesday, February 28, 2012. At the start of the noise monitoring, the temperature was 55°F, the sky was partly cloudy with calm wind conditions ranging between 0 and 5 mph (see Appendix C).

Table 14 below shows the City's residential exterior noise standards.

**Table 14: Residential Exterior Noise Standards**

Exterior Noise Standards		
Noise Zone	Noise Level	Time Period
1	55 db(A)	7 a.m. - 10 p.m.
	50 db(A)	10 p.m. - 7 a.m.

Table 15 shows the City's residential interior noise standards.

**Table 15: Residential Interior Noise Standards**

Interior Noise Standards		
Noise Zone	Noise Level	Time Period
1	55 db(A)	7 a.m. - 10 p.m.
	45 db(A)	10 p.m. - 7 a.m.

ISSUES (and Supporting Information Sources):

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Potentially Significant	No Impact
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The primary sources of long-term operational noise associated with the proposed project include typical activities of residential development uses. These activities do not generate excessive amounts of noise, and typically occur during the day. Residential land uses are located north and south of the project site. Noise generated by project operation will therefore be similar to existing types of noise in the project area. Noise from residential activities is not expected to exceed the City’s noise standards and therefore, the project is anticipated to have a less than significant impact regarding long-term operational noise. Short-term construction noise impacts from the project are discussed below.

The nearest existing residences to the project site are located at least 10 feet or more away from the northern and southeastern project boundaries. These adjacent residential uses are separated from the project site by existing 6-foot tall block wall/fences along the backyards of the homes to the north of the site and back side yard wall of the home to the southeast (and adjacent to) the project site. Grading is considered the noisiest phase of construction; therefore, the anticipated grading equipment was modeled. Modeling for construction-related noise was performed using the U.S. Department of Transportation Federal Highway Administration’s (FHWA) Roadway Construction Noise Model (RCNM). The RCNM is the FHWA national model used for the prediction of construction-related noise and to determine compliance with noise limits for a variety of types of construction projects of varying complexity. The RCNM includes an extensive compilation of built-in reference noise levels for dozens of types of construction-related equipment based on manufacturer and actual monitored sources. Results from RCNM analysis are shown in Table 16.

**Table 16: Construction Equipment Noise Levels**

Equipment Description	Noise Level (L <sub>max</sub> dBA) at 50 feet	Distance to Receptor (feet) <sup>1</sup>	Maximum Noise Level (L <sub>max</sub> dBA) at Receptor <sup>2</sup>	Average Noise Level (L <sub>eq</sub> dBA) at Receptor <sup>2,3</sup>
Excavator	80.7	300	60.1	56.2
Grader	85.0	300	64.4	60.5
Dozer	81.7	300	61.1	57.1
Tractor	84.0	300	63.4	59.5

<sup>1</sup> Reflects an average distance of construction equipment from project boundary.  
<sup>2</sup> Takes into account attenuation of 6-foot barrier at northern and eastern boundaries. <sup>3</sup> Leq represents the average noise level emitted during the duration of active use (usage percent in RCNM) of equipment.  
 Source: RCNM output, MBA 2012.

Typical operating cycles for these types of construction equipment may involve one or two minutes of full power operation followed by three to four minutes at lower power settings. Although there would be a relatively high single event noise exposure potential, resulting in potential short-term intermittent annoyances, the effect in long-term ambient noise levels would be small when averaged over longer time (24 hours for CNEL or L<sub>dn</sub>). As shown by the ambient noise level measurements in Table 13, the existing maximum noise levels in project vicinity can be as high as 84.5 dBA (63.9 dBA L<sub>max</sub> at residential uses to the north). The results in the table above show at an average construction activity distance of 300 feet from receptors, the maximum noise level would be 64.4 dBA. However, the noise from construction equipment will be transitory, intermittent, and not a source of continuous noise. Grading of the site is anticipated to take approximately one month. In the Municipal Code, Special Provisions Section 8.40.090 (d), “Noise sources associated with construction, repair, remodeling, or grading of any real property construction...shall be exempt from the provisions of this chapter...provided a permit has been

ISSUES (and Supporting Information Sources):

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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obtained from the City; and provided said activities do not take place between the hours of 8 p.m. and 7 a.m. on weekdays, including Saturday, or at any time on Sunday or a federal holiday.”

The construction activities associated with the proposed project will comply with the Noise Ordinance. In addition, as discussed in Responses X c) and X d), construction noise and long-term noise impacts, respectively, would be less than significant. However, to further reduce construction noise levels, the following mitigation measures are recommended.

**MM NOI-1:** All construction equipment shall use available noise suppression devices and properly maintained mufflers. All internal combustion engines used in the project area shall be equipped with the type of muffler recommended by the vehicle manufacturer. In addition, all equipment shall be maintained in good mechanical condition to minimize noise created by faulty or poorly maintained engine, drivetrain, and other components.

**MM NOI-2:** During construction, stationary construction equipment shall be placed such that emitted noise is directed away from sensitive noise receptors and as far as possible from the boundary of the residential use.

b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels? (Sources: 65)

**Discussion:** Neither the City of Huntington Beach General Plan nor the City’s Municipal Code contain provisions specifically regarding groundborne vibration or groundborne noise levels.

The human response to vibration greatly depends on whether the source is continuous or transient. Continuous sources of vibration include certain construction activities, while transient sources include large vehicle movements. Generally, thresholds of perception and agitation are higher for continuous sources.

Table 17 illustrates the human response to both continuous and transient sources of groundborne vibration.

**Table 17: Human Response to Groundborne Vibration**

Peak Particle Velocity (inches/second)		Human Response
Continuous	Transient	
0.40	2.00	Severe
0.10	0.90	Strongly perceptible
0.04	0.25	Distinctly perceptible
0.01	0.04	Barely perceptible

Source: California Department of Transportation, 2004.

Typically, developed areas are continuously affected by vibration velocities of 50 VdB or lower. These continuous vibrations are not noticeable to humans whose threshold of perception is around 65 VdB. Offsite sources that may produce perceptible vibrations are usually caused by construction equipment, steel-wheeled trains, and traffic on rough roads, while smooth roads rarely produce perceptible groundborne noise or vibration. Acceptable vibration levels for an office environment would be 84 VdB; 78 VdB for residential uses during the day. Table 18 below shows the vibration levels generated by construction equipment.

ISSUES (and Supporting Information Sources):

Potentially Significant Impact      Potentially Significant Unless Mitigation Incorporated      Less Than Significant Impact      No Impact

**Table 18: Vibration Levels Generated by Construction Equipment**

Equipment	Peak Particle Velocity (inches/second) at 25 feet	Approximate Vibration Level (L <sub>v</sub> ) at 25 feet
Pile driver (impact)	1.518 (upper range) 0.644 (typical)	112 104
Pile driver (sonic)	0.734 upper range 0.170 typical	105 93
Clam shovel drop (slurry wall)	0.202	94
Hydromill (slurry wall)	0.008 in soil 0.017 in rock	66 75
Vibratory Roller	0.210	94
Hoe Ram	0.089	87
Large bulldozer	0.089	87
Caisson drill	0.089	87
Loaded trucks	0.076	86
Jackhammer	0.035	79
Small bulldozer	0.003	58

Source: Transit Noise and Vibration Impact Assessment, Federal Transit Administration, May 2006.

Construction activities can produce vibration that may be felt by adjacent uses. The construction of the proposed project would not require the use of equipment such as pile drivers, which are known to generate substantial construction vibration levels. The primary source of vibration during project construction would likely be from a bulldozer (tractor), which would generate 0.089 inch per second PPV at 25 feet with an approximate vibration level of 87 VdB. The vibration from the bulldozer would be intermittent and not a source of continual vibration.

While long-term operations of the proposed project would not generate excessive groundborne vibration or groundborne noise levels, short-term construction could potentially introduce groundborne vibration to the project site and the surrounding area.

The closest receptors to the project site include the homes located adjacent to the northern boundary of the project site and those homes just south of Pioneer Drive. However, the bulldozer will mainly be used during the demolition of the existing school and will operate at least 100 feet from the closest sensitive receptor. It is anticipated that vibration levels generated by a bulldozer and experienced at the nearest offsite structure will be approximately 68 VdB, which is below the acceptable level of 78 VdB for residential (sensitive) uses during the day.

Grading and earthmoving activities would occur on the project site, pile drivers, large earthmovers, and other construction equipment and activities associated with groundborne vibration are not anticipated to occur. Demolition of the existing onsite buildings will not require the use of blasting, wrecking ball, or other groundborne vibration-generating equipment. Therefore, impacts associated with the vibration from construction equipment are considered to be less than significant.

ISSUES (and Supporting Information Sources):

Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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- c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project? (Sources: 65)
- 

**Discussion:** An increase of 3 dBA is considered barely perceptible to most healthy ears. Typically, an increase of 5 dBA or greater is considered one of significance, as it is considered readily perceptible. The primary source of project-related noise impacts would be generated by project-related traffic.

The Traffic Study performed for the project determined which roadways are likely to be used by vehicles accessing the project. Average daily traffic (ADT) volumes for those roadways under various scenarios were calculated and offsite noise levels were calculated along road segments in the project vicinity for the following scenarios: existing conditions; existing plus project conditions; year 2014 conditions, with and without project, and year 2030 conditions, with and without project. A maximum noise increase of 1.4 dBA due to project-related traffic would occur on Pioneer Drive, west of the project site (see the noise appendix for the calculation table). This increase in noise over existing conditions is less than the 5 dBA threshold of significance. Furthermore, the proposed project is a residential use and not considered a substantial source of stationary noise. Other sources of noise produced by the proposed residential project in the long term (i.e., project operation) would be consistent with the surrounding residential area and therefore are not anticipated to be significant.

Therefore, the project will not cause a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project and impacts are less than significant.

- d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project? (Sources: 64)
- 

**Discussion:** Temporary or periodic increases in ambient noise levels would occur during project construction. Earth moving activities and the truck trips associated with soils removal from the project site would temporarily increase noise in the project area. However, this noise would be temporary in nature and would cease upon completion of grading/earthmoving activities. Construction noise impacts associated with the proposed project would be at a similar level to existing noise levels already experienced by adjacent receptors; therefore, impacts would be less than significant. However, to further reduce construction noise and to be consistent with General Plan policies to minimize the potential for construction noise impacts to sensitive receptors, the incorporation of Mitigation Measures NOI-1 and NOI-2, as identified in Item X a) above, are recommended.

- e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels? (Sources: 24, 25, 27)
- 

**Discussion:** The northern part of the City of Huntington Beach is within the AELUP for the Joint Forces Training Base Los Alamitos. However, the project is not located within the AELUP area for the Joint Forces Training Base. Therefore, the project would have a less than significant impact regarding exposure of people residing or

ISSUES (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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working in the project area to excessive noise levels, due to the project's distance from the Joint Forces Training Base (approximately 9 miles from the project site).

- f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels? (Sources: 24, 25, 27)
- 

**Discussion:** As detailed on AirNav.com, there are no airports or airstrips in the City of Huntington Beach. The nearest airport is John Wayne Airport located approximately 5.5 miles from the project site. Therefore, the project would have no impact regarding exposure of people residing or working in the project area to excessive noise levels because there are no airstrips in the City of Huntington Beach.

**XI. PUBLIC SERVICES.** Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

- a) Fire protection? (Sources: 36, 37, 38, 30, 23, 52)
- 

**Discussion:** The City of Huntington Beach Fire Department provides fire protection, rescue, emergency medical and hazardous materials control and response services to the City of Huntington Beach. The Fire Department maintains eight fire stations throughout the City. The nearest fire station to the project site is Fire Station No. 3 - Bushard, located at 19711 Bushard Street, approximately one quarter mile east of the project site. Fire Station 3-Bushard opened in 1964 and was remodeled in 2002. This station serves the residential areas bordering Fountain Valley and apparatus at this station includes a paramedic engine company. An increase in development within the Wardlow residential plan area may require a proportionate increase in the amount of public safety staff, fire station facilities, and fire apparatus, training and equipment; however, the Huntington Beach Fire Department did not indicate that the proposed project would have any adverse impacts to the Fire Department.

Based on information from the 2010 Census, the City has a population of 189,992, with 2.56 persons per household. The project proposes 49 homes, which results in an estimated increase in population of approximately 126 persons. Thus, the proposed project is estimated to increase the population of the City by approximately .06 percent, which is under one-tenth of one percent of the City's current estimated population. Thus, the proposed project would not result in a large increase in population, which would need to be served by the Huntington Beach Fire Department.

Project construction and internal circulation will comply with all relevant fire codes and is subject to review and approval from the Huntington Beach Fire Department. Therefore, less than significant impacts regarding fire protection are anticipated.

ISSUES (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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b) Police Protection? (Sources: 48)

**Discussion:** Per information provided by the City of Huntington Beach Police Department, the project would be served by the Huntington Beach Police Station located at 2000 Main Street in the City of Huntington Beach. One to two officers are assigned to the beat are for the proposed project 24 hours a day depending on the time of day. The entire jurisdiction ranges from 8 officers to 25 officers, depending on the time of day. The Police Department has a helicopter, K-9, Gang and narcotic officers, SWAT, School Resource Officer, traffic enforcement and detectives, which are available for the entire jurisdiction. The City's Police Department has a county wide mutual aid agreements and communication capabilities with all Orange County cities and County agencies.

Based on information from the 2010 Census, the City has a population of 189,992, with 2.56 persons per household. The project proposes 49 homes, which results in an estimated increase in population of approximately 126 persons. Thus, the proposed project would not result in a large increase in population, which would need to be served by the Huntington Beach Police Department. Based on crime data for the project site and reporting district, from 2011 to June 2012, there was one burglary reported at the project address. Within the reporting district (RD) in which the project is located (RD 435) there were 12 assaults, 8 burglaries, 32 incidents of larceny (i.e., shoplifting, vehicle burglary etc), 1 auto theft and 9 vandalisms. The current average crime rate for the City of Huntington Beach is 79.51. Using this information, the reporting district in which the project is located had a total of 62 crimes from 2011 to June 30, 2012. Therefore, the crime rate in the project's reporting district did not equal or exceed the City's current average. Given that the project proposes single family residential land uses and that the land use surrounding the project site is similarly residential, it is not anticipated that the proposed project would result in a substantial increase in crime in the project area. No adverse impacts are anticipated as a result of the proposed project and existing facilities, manpower, and equipment are adequate to maintain a sufficient level of service throughout the jurisdiction. Therefore, a less than significant impact is anticipated on police services as a result of the proposed project.

c) Schools? (Sources: 39, 40, 61, 62)

**Discussion:** The proposed project falls within the attendance boundary of the Fountain Valley Unified School District (FVUSD) and the Huntington Beach Union High School District (HBUHSD). The FVUSD would accommodate students from the project attending elementary and middle schools and the HBUHSD would accommodate students from the project attending grades 9-12 (high school) only. Potential impacts of the project on schools within each of these districts is discussed below.

**Fountain Valley School District**

According to information from Stephen McMahon, Assistant Superintendent, Business Services for the Fountain Valley School District, the schools that would accommodate students from the proposed project are as follows: Newland Elementary School at 8787 Dolphin Drive in Huntington Beach and Talbert Middle School at 9101 Brabham Drive in Huntington Beach. Newland Elementary School has a 2011-2012 enrollment of 420 students, with a projected enrollment (2012-2013) of 440 students. Talbert Middle School has a 2011-2012 enrollment of 715 students, with a projected enrollment (2012-2013) of 695 students. There are no planned expansions to increase enrollment capacity. Both school sites are at capacity and additional classrooms may be necessary.

Using the student generation factor of .5 student per household for K-8 residential development, the Wardlow project, which proposes 49 units, is estimated to generate a total of 25 new students who would attend Newland

ISSUES (and Supporting Information Sources):

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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Elementary school and Talbert Middle School.

Per the information form Stephen McMahon, impact fees charged are \$2.97 per square foot for residential development. The proposed project is anticipated to have a less than significant impact to schools in the Fountain Valley School District because the proposed project will pay required school impact fees (per City code requirements).

**Huntington Beach Union High School District**

According to information from Carrie Womack, Assistant Superintendent, Business Services for the Huntington Beach Union High School District, the high school that would accommodate students from the project is Huntington Beach High School located at 1905 Main Street in Huntington Beach. The design capacity of this school is 3,000 students and the current enrollment is 2,810 students. There is no planned expansion to increase enrollment capacity at this school. Therefore, Huntington Beach High School can accommodate 190 additional students.

The District's quantitative student generation factor used to estimate the number of students from single-family residential development projects, with respect to high school is .2. Per the letter from Carrie Womack, regarding the proposed Wardlow project: it is unlikely, based on generation factor, that any new school facilities or expansions to existing facilities will be required to handle the estimated number of students that would eventually reside in the proposed project.

Using the student generation factor of .2, the Wardlow project, which proposes 49 units, is estimated to generate 10 new students that would attend Huntington Beach High School. As this school can accommodate 190 additional students, the addition of 10 new students from the proposed project is not anticipated to result in significant impacts.

Per the information form Carrie Womack, impact fees charged are \$2.97 per square foot for residential development. Given that addition of the anticipated 10 students from the project would not exceed the capacity of Huntington Beach High School and given that the proposed project will pay required school impact fees (per City code requirements), the project is anticipated to have a less than significant impact on the Huntington Beach Union High School District.

With compliance with the City's code requirements to pay school impact fees, less than significant impacts are anticipated with regards to the Huntington Beach Union High School District and the Fountain Valley School District.

d) Parks? (Sources: 1, 41, 23, 2)

**Discussion:** In the City of Huntington Beach there are 73 parks and public facilities, totaling 747 acres, with 169 playground apparatus. The city also has 150 acres of public beach. The closest park to the proposed project site is Wardlow Park, an approximately 8.3 acre park located at 19761 Magnolia Street. Amenities at this park include: a tot lot, open play area (grass) and picnic tables/benches.

The City of Huntington Beach identifies recreational opportunities in the Recreation Element of the General Plan and on the City's Parks webpage. Per the City's open space and park inventory (dated February 2012), the City currently has a total of 1,062.39 acres of park and open space, which includes City beach acreage and Meadowlark Golf Course and as such, the City does not have a parks shortage. The project site is not identified as a City park in the Recreation Element of the General Plan. The project site is listed in Table RCS-2, School Park and

ISSUES (and Supporting Information Sources):

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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Recreation Facilities, in the Recreation Element of the City's General Plan. The playfields on the project site are unfenced, they are accessible to the public. However, these playfields are a part of the former school grounds owned by the project applicant. The playfields are not designated as open space or recognized as public parkland by the City. The playfields were not provided in fulfillment of any Quimby Act requirements.

The proposed project will comply with Chapter 254, Section 254.08, Parkland Dedication, of the City of Huntington Beach Zoning Code which intends to implement the provisions of the Quimby Act that authorizes the City to require the dedication of land for park and recreational facilities or payment of in-lieu fees incident to and as a condition of the approval of a tentative tract map or tentative parcel map for a residential subdivision.

Per the City of Huntington Beach Parkland Dedication Calculation, the project would dedicate approximately 0.66 acres of land. The project is proposing to construct a new landscaped parking lot with 80 parking spaces on approximately 0.82 acres of land it will dedicate to the City.

Given that the project will dedicate 0.82 acres of land to the City of Huntington Beach in the form of the improved 80 space parking lot, the proposed project exceeds Quimby dedication requirements by approximately .16 acres. Therefore, there will be a less than significant impact.

- e) Other public facilities or governmental services?      
 (Sources: 14, 47, 53, 54)

**Discussion:** Per communications with representatives of Verizon, Southern California Edison and Southern California Gas Company, telecommunications, electrical and natural gas service will be provided to the project site subject to the terms and conditions of these utilities.

The proposed project is located within established areas for telephone and television services. Additionally, the proposed project will pay fees to mitigate any potential impacts of the project on library facilities in the City of Huntington Beach in compliance with Chapter 17.6, Library Development Fee, of the City of Huntington Beach Municipal Code

In addition, the proposed project is subject to fees per Chapter 3.4, Community Enrichment Library Fee, of the City of Huntington Beach Municipal Code, which is due and payable at the time of issuance of the building permit for the construction of residential, commercial or industrial units or buildings, or for the construction or reconstruction of any mobile home park.

Therefore, with payment of applicable fees described above, project implementation is not anticipated to result in substantial adverse physical impacts associated with public facilities or libraries in the City of Huntington Beach. Therefore, the project is anticipated to have a less than significant impact in this regard.

**XII. UTILITIES AND SERVICE SYSTEMS.** Would the project:

- a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?      
 (Sources: 43)

ISSUES (and Supporting Information Sources):

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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**Discussion:** Implementation of the proposed project would result in the generation of wastewater. As detailed in the Sewer Study for the proposed project, the residential project would result in 3,200 gallons per day per acre of wastewater discharge (which equates to a total of 26,720 gallons of wastewater per day) compared to the previously existing school use onsite, which produced 3,600 gallons per day per acre of wastewater discharge (which equates to a total of 30,050 gallons of wastewater per day). Thus, because the sewer system could handle the higher amount of wastewater discharge from the school use when it existed onsite, it is anticipated that the proposed residential land use onsite, which results in less wastewater discharge would not exceed wastewater treatment requirements of the Santa Ana Regional Water Quality Control Board. Additionally, the proposed project will be in adherence with all applicable standards, regulations, and policies of the Santa Ana Regional Water Quality Control Board to reduce potential impacts to less than significant.

- b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? (Sources: 43, 46, 51, 69, 70, 71)
- 

**Discussion:** Implementation of the proposed project would generate an increase in water and wastewater treatment, each of which is described below.

**Water**

According to the City of Huntington Beach Public Works Department, the proposed project site fronts Pioneer Drive and there is an existing 8" AC pipe along the south side of Pioneer Drive centerline. In Magnolia Street there is an existing 12" AC pipe along the east side of Magnolia Street centerline. The Public Works Department has indicated that the City has multiple redundant water supply and storage, ranging from tanks and reservoirs throughout the City boundary, as well as groundwater storage that can be extracted when necessary. According to the 2010 Urban Water Management Plan, there is sufficient water supply to meet the need of the project area. The City does not anticipate any adverse impacts as a result of providing water service to the proposed project. The addition of this project area will not require increased facilities, manpower, and equipment to provide sufficient level of service throughout the City. Therefore, based on the information from the City's Public Works Department, the proposed project would result in less than significant impacts regarding water treatment facilities.

**Wastewater**

The January 2012 Sewer Report prepared for the proposed project by Walden and Associates provides both existing (pre-development) and proposed (post-development) calculations to determine the adequacy of the existing 8-inch VCP sewer located in Pioneer Drive to serve the proposed project. As detailed in the January 2012 sewer study prepared for the proposed project, due to slope and depth of cover requirements of the City of Huntington Beach, a sewer lift station is proposed to convey wastewater from the proposed project to the existing 8-inch sewer line in Pioneer Drive. The sewer lift station will provide the necessary cover within the proposed tract by providing the necessary elevation lift of wastewater, with gravity flow to the existing main line. The proposed point of connection would be at a new manhole located approximately 275 feet west of the intersection of Pioneer Drive and Lotus Lane. The lift station would be installed within the entrance to the project site. The adequacy of the existing 8-inch pipe is substantiated by the modeling in the sewer study showing that the depth of flow does not exceed calculated flow depth to pipe inside diameter (D/d) of 0.5 with the proposed residential flows and therefore is within acceptable standards of the City of Huntington Beach. Development of the proposed lift

ISSUES (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact

station and manhole are not anticipated to result in significant environmental effects, as these components of the project would be developed during project construction and would not require the development of facility expansion outside of the lift station, which is proposed on the project site.

Additionally, no construction/expansion of wastewater drainage facilities is anticipated beyond the proposed project with the onsite lift station because the residential project would result in 3,200 gallons per day per acre of wastewater discharge (which equates to a total of 26,720 gallons of wastewater per day) compared to the previously existing school use onsite, which produced 3,600 gallons per day per acre of wastewater discharge (which equates to a total of 30,050 gallons of wastewater per day). Thus, because the sewer system could handle the higher amount of wastewater discharge from the school use when it existed onsite, it is anticipated that the proposed residential land use onsite, which results in less wastewater discharge would not require the expansion of existing wastewater drainage facilities. This will be verified in the design phase of the project. Per the project code requirements, the developer will be required to meter the actual flows in the City system to verify capacity.

Per information provided by the City of Huntington Beach Public Works Department, the proposed project site will drain into an 8 inch VCP pipe in Pioneer Drive, which flows easterly and then southerly onto Lotus Lane, and into an 18 in VCP pipe on Adams Avenue, then westerly into a 72 inch Orange County Sanitation District (OCSD) trunk main that ultimately flows to Reclamation Plant #2. The City of Huntington Beach operates, owns, and maintains a wastewater collection system that connects to OCSD regional trunk sewer lines. Reclamation Plant #2 is located in the City of Huntington Beach and has a primary treatment capacity of 168 million gallons per day of primary treated wastewater and 150 million gallons per day of secondary treated wastewater. The current average flow is 103 million gallons per day, which results in a remaining primary treatment capacity of approximately 65 million gallons per day. Thus, the proposed project's estimated generation of 26,720 gallons per day of wastewater discharge is anticipated to have a less than significant impact on OCSD's facilities and less than significant impacts are anticipated in this regard.

- c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? (Sources: 44, 45)

**Discussion:** As described in the Preliminary Hydrology Study for the proposed project, the site's current drainage is not consistent with the City's Master Plan because the site's drainage currently splits drainage flow to both the north and south, which is contrary to the approved Master Plan of Drainage. With development of the proposed project, all existing drainage flows to the north to Madeline Drive will be picked up with development of the project so that the drainage patterns will be in a south-easterly direction consistent with the City's Master Plan.

The project site is currently developed with school buildings, parking lots and other impervious hardscape areas. As detailed in the Water Quality Management Plan (WQMP) for the proposed project, under pre-project conditions, 53 percent of the project site contains impervious surfaces. With the proposed project, impervious surfaces would be increased to 60 percent of the project site.

Per the project code requirements, the project is proposing to detain the difference in flows between the proposed 100 year and existing 25 year storms. This is to assure that downstream City storm drain systems are not impacted. However, the project will construct approximately 1,300 linear feet of public storm drain line within Pioneer Drive and Lotus Lane, connecting the tract's drainage system to the existing storm drain line at the intersection of Adams Avenue and Lotus Lane. The project also proposes to construct a storm drain, as shown on the City's Master Plan of Drainage that will run in Lotus Lane from Gettysberg Drive south to the existing storm drain in Adams Avenue.

ISSUES (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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The storm drain will consist of a 36 inch portion and a 42 inch portion of reinforced concrete pipe, which will run a length of approximately 605 linear feet beginning from the intersection of Lotus Lane and Gettysburg Drive southward to tie into the existing storm drain in Adams Avenue. The construction of proposed storm drain improvements is anticipated to have a less than significant impact on the environment because the improvements will occur within street rights-of-way, construction activities will be temporary, and the overall ability of the system to handle storm drainage flows will be enhanced.

Thus, the proposed conversion to residential use is not anticipated to result in significant environmental effects as a result of the need for construction of new stormwater drainage facilities. The City of Huntington Beach will review the proposed project for conformance with City standards, thus less than significant impacts are anticipated in this regard.

- d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed? (Sources: 51, 72)
- 

**Discussion:** Implementation of the proposed project would result in an increase in demand on the existing water supplies. However, according to the City of Huntington Beach Public Works Department, per the 2010 Urban Water Management Plan, there is sufficient water supply to meet the need of the project area. The City does not anticipate any adverse impacts as a result of providing water service to the proposed project. Using information from the City of Huntington Beach 2012 Urban Water Management Plan (UMP), the City's population was 204,831 in 2010 and single family residential land uses used 13,754 acre feet of water in 2010 (which equals 12,278,796 gallons per day in 2010). With a population of 204,831, this results in an average water use per capita which of approximately 60 gallons per day. The project's estimated population is 126 residents, which equates to an estimated demand of 7,560 gallons per day for the proposed project. As detailed in Tables 4.2-1 and 4.2-2, the Metropolitan Water District projects a water surplus in the future. Table 4.2-1 summarizes single dry year demand and shows surpluses in all years ranging from a low of 148.3 percent (projected supply during a single dry year as a percent of single dry year demand) in 2015 to a high of 182.3 percent in 2020. Table 4.2-2 shows surpluses in all years ranging from a low of 118.6 percent (projected supply during an average year of multiple (three) year dry period) as a percent of average multiple dry year demand) in 2015 to a high of 142.5 percent in 2025. The addition of this project area will not require increased facilities, manpower, and equipment to provide sufficient level of service throughout the City. Therefore, based on the information from the City's Public Works Department and the City's 2010 Urban Water Management Plan, the proposed project would result in less than significant impacts regarding water supplies, as surplus supplies are projected into the future.

- e) Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments? (Sources: 43, 46, 69, 70, 71)
- 

**Discussion:**

Per the Sewer Study conducted for the proposed project site, the residential project would result in 3,200 gallons per day per acre of wastewater discharge (which equates to a total of 26,720 gallons of wastewater per day) compared to the previously existing school use onsite, which produced 3,600 gallons per day per acre of

ISSUES (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact

wastewater discharge (which equates to a total of 30,050 gallons of wastewater per day). Per information provided by the City of Huntington Beach Public Works Department, the City of Huntington Beach operates, owns, and maintains a wastewater collection system that connects to OCSD regional trunk sewer lines. Reclamation Plant #2 is located in the City of Huntington Beach and has a primary treatment capacity of 168 million gallons per day of primary treated wastewater and 150 million gallons per day of secondary treated wastewater. The current average flow is 103 million gallons per day, which results in a remaining primary treatment capacity of approximately 65 million gallons per day. The estimated 26,720 gallons per day of wastewater discharge anticipated from the proposed residential project comprises a fraction of the remaining daily primary treatment capacity of Reclamation Plant #2. Therefore, implementation of the proposed project would result in less than significant impacts on wastewater treatment capacity.

- f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs? (Sources: 15, 16, 17, 18, 19)

**Discussion:** The project would generate solid waste from construction and demolition debris during the short-term construction period and from long-term project operations. Rainbow Environmental Services is the exclusive hauler of all solid waste for the City of Huntington Beach. Rainbow Environmental Services operates a transfer station, located at 17121 Nichols Street in the City of Huntington Beach, and two Materials Recovery Facilities through which all solid waste is processed. Rainbow Environmental Services' Transfer Station has a design capacity of 2,800 tons per day, and current utilization ranges between 53 and 71 percent. Assuming a worst-case scenario of 71 percent utilization, the daily solid waste contribution to this transfer station under the proposed project would be less than one percent at approximately 0.01 percent of its entire design capacity. Utilization of the transfer station would not be noticeably impacted with implementation of the proposed project. Remaining solid waste is then transported to the Frank R. Bowerman Landfill located at 11002 Bee Canyon Access Road in the City of Irvine. The Frank R. Bowerman Landfill is approximately 725 acres with 341 acres permitted for refuse disposal. It is permitted to receive a daily maximum of no more than 8,500 tons per day. It is scheduled to close in approximately 2053.

According CalRecycle (formerly the California Integrated Waste Management Board), an estimate of solid waste generation rates for a residential use is 12.23 pounds per household per day. Thus, the proposed project, with 49 homes is estimated to generate approximately 600 pounds of solid waste per day (which equates to .3 tons of solid waste per day). It is anticipated that the Frank R. Bowerman Landfill will have enough capacity to accept the project generated waste because the proposed project is estimated to constitute approximately 0.0035 percent of the landfill's daily maximum of 8,500 tons per day. Therefore, the project impacts are considered less than significant.

- g) Comply with federal, state, and local statutes and regulations related to solid waste? (Sources: 20, 21)

**Discussion:** Assembly Bill 939, the Integrated Waste Management Act of 1989 requires each city or county plan to include an implementation schedule that shows diversion of 50 percent of all solid waste from landfill or transformation facilities by January 1, 2000, through source reduction, recycling, and composting activities. The City of Huntington Beach surpassed the mandated benchmarks set by the state and in 2000 (the latest reporting year) had a diversion rate of 67 percent, which was the second highest rate in Orange County. In 2008, California

ISSUES (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Potentially Significant	Less Than Significant	No Impact
			Impact	Impact	

enacted Senate Bill (SB) 1016, which modified the system of measuring a jurisdiction's compliance with solid waste disposal requirements previously under AB 939. SB 1016 established a per-capita disposal rate as the instrument of measurement. The City of Huntington Beach is subject to a per resident disposal rate target of 10.4 pounds per person per day (PPD). The most recent information from the City of Huntington Beach is that the City's PPD rate dropped from 5.5 in 2007 to 4.6 in 2009, demonstrating compliance with SB 1016.

The proposed project is not anticipated to conflict with any of the policies of the City of Huntington Beach because it will comply with City requirements regarding solid waste disposal and the project site will be served by a solid waste franchise hauler. Additionally, a part of proposed project's green building program, the project will implement an Enhanced Construction Waste Management Program that will exceed recycling 65 percent of its construction waste to achieve CALGreen Tier 2 standards in this area. Therefore, a less than significant impact is anticipated in this regard.

- h) Include a new or retrofitted storm water treatment control Best Management Practice (BMP), (e.g. water quality treatment basin, constructed treatment wetlands?) (Sources: 44, 45)

**Discussion:** As described in the Water Quality Management Plan for the proposed project, with project buildout, the majority of the stormwater runoff from the project site will be conveyed into a proposed private storm drain system, where the water quality "first flush" flow will be directed into a subsurface pump, and discharge into a vegetated swale prior to discharging into a grated inlet. A portion of the site will be dedicated to Wardlow Public Park for parking purposes and will drain into two curb openings with tree box filters prior to discharging into the extended storm drain system along Pioneer Drive. The inclusion of the above described vegetated swale and open bottomless area drains is anticipated to have a beneficial impact regarding water quality and hydrology onsite. As detailed in the Preliminary Hydrology Study for the proposed project, all existing drainage flows to the north to Madeline Drive will be diverted with the development of the proposed project so that the drainage patterns will be in a south-easterly direction consistent with the City's Master Plan. Therefore, less than significant impacts are anticipated in this regard.

**XIII. AESTHETICS.** Would the project:

- a) Have a substantial adverse effect on a scenic vista? (Sources: 1)

**Discussion:** The project will not have a substantial adverse impact on a scenic vista due to its distance from the Pacific Ocean and that the proposed project will not block views of the distant mountain ranges or other scenic resources. Therefore, the proposed project will have no impact in this regard.

- b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? (Sources: 1, 22)

		Potentially Significant	Potentially Significant	Potentially Significant	No Impact
		Unless Mitigation Incorporated	Less Than Significant Impact		
ISSUES (and Supporting Information Sources):					

**Discussion:** The proposed project is not located adjacent to or near an Officially Designated State/County Scenic Highway or Eligible or Officially Designated Route as designated by the California Department of Transportation's (Caltrans) Scenic Highway Program. Therefore, the proposed project will have no impact on scenic resources within a State Scenic Highway.

- c) Substantially degrade the existing visual character or quality of the site and its surroundings? (Sources: 67)

**Discussion:** The project's building architecture is clearly defined in terms of styles, articulation along building planes, setbacks to first and second floors, window placement, perimeter edge treatments, etc., and is designed to be compatible with the neighborhood and City Urban Design Guidelines.

**Building Architecture and Materials**

The project includes a variety of architectural designs for the 49 homes proposed onsite. The project proposes three site plan styles, named: Santa Barbara, Coastal California, and California Cottage, each of which is described briefly below. Refer to Appendix A, which provides project plans that show examples of the building architecture proposed.

The Santa Barbara design includes a smooth stucco finish, with stucco details, concrete "s" tile roof, accent shutters, and a wooden style garage. This design is a Mediterranean style design with tile roof and earth colored materials. The California Cottage includes smooth stucco finish, stone veneer; decorate shutters, decorative pot shelf, and a concrete tile roof. This design is cottage-like and includes stone veneer, which is a cottage-style design. The Coastal California design includes smooth stucco finish, cementitious shingle siding, stone veneer, wood trim at siding and stone and a concrete tile roof. This design is craftsman-like in that it includes shingle-style siding and shutters.

**Building Height**

The project's building pad elevations were able to be lowered so that the differential to the adjacent existing residential neighborhoods was minimized to a range from a minimum of four inches (- 4") below the existing adjacent residential neighborhood pads to a maximum of 18 inches above the existing adjacent residential neighborhood pads and an average differential of only five (5") inches higher than the adjacent existing neighboring lots.

Per the City of Huntington Beach Zoning and Subdivision Ordinance Chapter 210, maximum building height (as measured from the top of curb) is 35 feet. The project proposes building heights that range from 27 feet 2 inches to 30 feet 2 inches maximum, measured from the highest top of curb. Therefore, the proposed project conforms to the City's height restrictions.

**Conceptual Landscape Plan**

Per the conceptual landscape plan dated May 15, 2012, the project proposes several parkway canopy street trees along Pioneer Drive and along the internal streets within the proposed project. Neighborhood signage will be located at the project entrance, where the project intersects with Pioneer Drive. Additionally, enhanced paving will be provided at the neighborhood entrance. A landscape buffer is proposed between the proposed 80 space parking lot and the homes in the project. This buffer will be comprised of a vertical tree screen, as well as an exposed perimeter 5 foot 6 inch high slump block wall with slump block cap with pilasters at every property line

ISSUES (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant	Less Than Significant Impact	No Impact
		Unless Mitigation Incorporated		

and at changes in wall planes. Additionally, an emergency/secondary ingress/egress access gate is proposed on the north side of the parking lot.

Between the homes onsite, there will be a 5 foot 6 inch high slump block wall with slump block cap and rear yard access gate. The landscaping in the front yard of the homes is provided by the homeowner. Along both the northern and eastern edge of the project site, a perimeter 5 foot 6 inch high precision block wall with precision block cap is proposed. Four foot wide sidewalks will be located along the internal streets and two enhanced pedestrian crossings will be provided.

**Project Integration with the Surrounding Community**

The existing homes in the vicinity of the proposed project are predominantly one story single family homes along Pioneer Avenue, across the street from the proposed project site. The existing homes located adjacent to the northern boundary of the proposed project site are a mix of single family one and two story homes. The existing homes located across Talbert Channel (to the east of the project site) are a mix of single family one and two story homes. Therefore, the proposed project fits in with the two story homes located in the vicinity of the proposed project. Additionally, as described above, the project has been designed with sensitivity towards the existing neighborhood by including increased rear yard setbacks for those 12 homes located along the northern boundary of the project site, which would be adjacent to the existing homes along Madeline Drive. The materials used for the proposed project consist of stucco and tile roofs. Many of the existing homes in the project vicinity have tile exteriors with shingled roofs. The proposed homes onsite include components such as accent shutters and stucco details, which serve to enhance the architectural style of the proposed homes.

The power lines that run along the north side of Pioneer Drive along the southerly edge of the Huntington Valley Little League ball fields from Magnolia Street to the Former Wardlow School buildings are proposed to be removed as a part of the project and placed underground to a terminus in an above ground vault on the City's Wardlow Park property. The chain link fence that runs the length of the south edge of the ball fields on the north side of Pioneer Drive is proposed to be replaced with a new fence. These improvements will serve to enhance the aesthetics and appearance of the project site and surrounding area.

It is not anticipated that the proposed project will substantially degrade the existing visual character of the project site or its surroundings because it will develop new homes with landscaping and other improvements that will replace the existing former Wardlow school site, which is currently boarded up and left vacant, and improve the visual quality of the site.

- d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? (Sources: 67)

**Discussion:** The introduction of light from interior and outdoor uses can be a nuisance to adjacent residential areas and can diminish the view of the clear night sky. Perceived glare is the unwanted and potentially objectionable sensation as observed by a person as they look directly into a light source. Light spill is typically defined as the presence of unwanted light on properties adjacent to the property being illuminated.

The project site consists of a former school facility with a parking lot (see Exhibit 2 at the end of this document). There are no significant existing sources of light and glare at the project site because the school is not lit at night. The exterior lighting, which is located on the side of some school buildings and mounted on the roof of some

		Potentially Significant		
	Potentially Significant Impact	Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
ISSUES (and Supporting Information Sources):				

buildings are not lit at night.

The area surrounding the project site consists of developed land, with residential uses and the Huntington Valley Little League fields adjacent to the western border of the project site. Sources of light and glare from offsite uses include lighting from the following sources:

- Single-family homes along Pioneer Drive and those units fronting Madeline Drive adjacent to and north of the project site are a source of light both from the interior and exterior of the homes.
- The adjacent ball fields are not lit at night, with the exception of the restroom facilities in the ball field parking lot and one light that is located on the exterior of a ball field storage shed along Pioneer Avenue.
- Wardlow Park is not lit at night. However, there is a streetlight located adjacent to Wardlow Park at the intersection of Pioneer Drive and Magnolia Avenue.
- Street lighting along Pioneer Drive is lit at night and is located along Pioneer Drive, on the opposite site of the street from the project site.
- Additional offsite lighting is from vehicles traveling along Pioneer Drive and street lighting for homes located across the County flood channel.

Sources of glare offsite include vehicles parked along Pioneer Drive, in the driveways of homes across the street and from vehicles parking in the ball field parking lot adjacent to the project site. An additional source of glare includes vehicles parked along Magnolia Avenue.

Implementation of the project would introduce additional sources of light and glare including light from residential structures, the proposed 80 space parking lot, street lighting, and vehicle headlights. Parking lot lighting will be shielded to prevent lighting spillover, consistent with City code. Lighting installed in the proposed ball field parking lot would be in compliance with City of Huntington Beach Municipal Code Standards (Section 231.18 C - Illumination) in that parking area lighting shall be energy-efficient and designed so as not to produce glare on adjacent residential properties.

An overhead light fixture is proposed to be installed by the project to provide illumination as an additional security feature and improve visibility in the northeast corner area of Wardlow Park. The streetlights currently located on the south side of Pioneer Drive serviced by an overhead electrical line are proposed to be relocated to the north side of Pioneer Drive. This should give a higher level of public safety by providing additional illumination along the park edge and Pioneer Drive. The overhead electrical service would be placed underground.

Vehicle headlights from those exiting the project site at night as well as those exiting the ball field parking lot at night would be visible to homes located across Pioneer from the project site. However, the Traffic Impact Analysis estimates there will be only 18 PM peak hour project trips for those exiting the project site. Regarding the proposed ball field parking lot, under existing conditions there are lights from vehicles exiting the project site at night. With the proposed project, this condition would continue, as vehicles would continue to exit the ball field parking lot at night. The proposed project would result in the entrance/exit point to the ball field parking lot to be shifted to the west, such that the entrance/exit is located closer to the ball fields compared to what currently exists. Due to the small number of projected peak PM hour trips from the proposed project and that the ball field parking lot would continue to operate, impacts regarding vehicle headlights are anticipated to be less than significant because conditions with the proposed project are not anticipated to be substantially different than existing conditions regarding vehicle headlights. The proposed homes would introduce new sources of light in the area; however, because the proposed residential units are similar to those surrounding the project site, light levels from new residential units would be similar to the light levels of surrounding uses.

The proposed new road to access the project site, which will intersect at Pioneer Drive is proposed in the vicinity of the existing driveway for ball field parking. This lot is used for ballgames at the adjacent ball field. The

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
ISSUES (and Supporting Information Sources):				

residential uses immediately south of the project site along Pioneer Drive currently experience light and glare from vehicle headlights exiting the existing ball field parking lot. The project would increase evening vehicle traffic along Pioneer Drive and additional headlights from project vehicles would be visible along this street. However, the volume of traffic along Pioneer Drive would not be substantial and therefore, any associated headlight glare would be less than significant. Thus, no mitigation measures are required and there will be a less than significant impact in this regard.

**XIV. CULTURAL RESOURCES.** Would the project:

- a) Cause a substantial adverse change in the significance of a historical resource as defined in  $\delta$ 15064.5? (Sources: 35, 62)

**Discussion:** According to the Fountain Valley School District, the Wardlow school was built in 1964. As such, structures on the site as of this date qualify as historic age for purposes of cultural resources assessment under CEQA. Any of the Wardlow School structures built in 1964 or earlier should be recorded on DPR 523 Form(s) and evaluated for significance. This evaluation includes determining whether the resource is eligible for inclusion in any federal, State, or local registers of significant resources. Visual observation of the school facilities, which have been closed since at least 2005, indicates that the buildings have not been maintained, and they are in a dilapidated condition, lack maintenance and restoration appears infeasible. Therefore, it is not expected that the school buildings would be considered significant historical resources. Nonetheless, Mitigation Measure CR-1 is required due to the age of the buildings.

**MM CR-1:** Prior to demolition, the whole of the existing Wardlow School shall be fully recorded onto DPR523 form sets and the form set delivered to the South Coastal Central Information Center at CSU-Fullerton. Delivery of the data to the Center mitigates for potential direct and unavoidable impacts to the existing structure complex.

With implementation of mitigation measure CR-1, impacts regarding historical resources are anticipated to be less than significant.

- b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to  $\delta$ 15064.5? (Sources: 35)

**Discussion:** Results of the South Central Coastal Information Center (SCCIC) records search indicate that there are no known cultural resources located within the project area, and that the closest known resource is situated more than 0.50 miles from the project area boundaries. Therefore, no known cultural resources will be impacted by the proposed project. However, based upon the large site size and resource types known in the vicinity of the project area, the potential for subsurface excavation to impact significant deposits is considered high. This determination is based upon the presence of numerous prehistoric age interments in the area, and the knowledge that singular, seemingly sporadic burials have been detected nearby. Therefore, the cultural resource sensitivity of the project area is considered high and mitigation monitoring is recommended during development. Refer to Mitigation Measure CR-2 below.

ISSUES (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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**MM CR-2:** The project applicant shall ensure that during ground-disturbing activities an archaeological mitigation monitoring program shall be implemented within the project boundaries. Full-time monitoring shall continue until the project archaeologist determines that the overall sensitivity of the project area has been reduced from high to low, as a result of mitigation monitoring. Should the monitor determine that there are no cultural resources within the impacted areas, or should the sensitivity be reduced to low during monitoring, all monitoring shall cease.

Specifically, prior to issuance of the first rough grading permit, and for any subsequent permit involving excavation to increased depth, the landowner or subsequent project applicant shall provide evidence to the City of Huntington Beach that a qualified archaeologist has been retained by the landowner or subsequent project applicant, and that the consultant(s) will be present during all grading and other significant ground disturbing activities.

With implementation of Mitigation Measure CR-2 above, the proposed project will have a less than significant impact regarding archeological resources.

- c) Directly or indirectly destroy a unique paleontological resource or site unique geologic feature? (Sources: 35)

**Discussion:** The proposed project site has been previously developed with a school and as such, no unique geologic features exist onsite. MBA contacted Dr. Samuel A. McLeod of the Los Angeles County Natural History Museum (LANHM), requesting a paleontological records check. The paleontological review from Dr. Samuel A. McLeod indicated that the project area is situated on surface deposits of younger Quaternary Alluvium associated with the nearby Santa Ana River. Younger Quaternary alluvial deposits do not typically contain fossil resources, at least in the uppermost layers. However, these sediments may overlie older Quaternary deposits, which are known to yield fossil remains within the general vicinity.

While there are no recorded paleontologic localities within the project area, localities are known from older Quaternary deposits nearby. The nearest locality from older Quaternary deposits is LACM 1339, situated about 1.25 miles from the project area. This locality is recorded along Adams Avenue, just east of the Santa Ana River, and excavations at approximately 15 feet from the modern ground surface yielded fossil specimens of mammoth and camel. In addition, a series of fossil localities (LACM 7422-7425) are known within the City of Huntington Beach, east of Lake Avenue and between Atlanta Avenue and Ocean Avenue. These localities produced fossils of mammoth, bison, and horse from older Quaternary deposits. The presence of these localities from older Quaternary deposits aptly demonstrates the fossil bearing potential of subsurface sediments within the project area if older Quaternary deposits are encountered during construction-related ground disturbance.

The project area has moderate to high paleontologic sensitivity at varying depths below the ground surface. This potential is considered low in the younger Quaternary deposits, and moderate to high for older Quaternary deposits.

Therefore, a paleontologic monitoring program is recommended by MBA to mitigate potential adverse impacts to paleontological resources in the older Quaternary deposits at depth. Refer to Mitigation Measures PR-1 through PR-4 below.

**MM PR-1:** The project applicant shall ensure that during excavation a qualified paleontologic monitor is present to observe excavation in areas identified as likely to contain paleontologic resources. Based upon this review, areas of concern include undisturbed older Quaternary deposits. Paleontologic monitors should be equipped to salvage fossils as they are unearthed, to avoid construction delays, and to remove samples of sediments likely to

ISSUES (and Supporting Information Sources):

Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Potentially Significant Less Than Significant Impact	No Impact
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contain the remains of small fossil invertebrates and vertebrates. Monitors must be empowered to temporarily halt or divert equipment to allow removal of abundant or large specimens. Monitoring may be reduced or eliminated if the potentially fossiliferous units described herein are determined upon exposure and examination by qualified paleontologic personnel to have low potential to contain fossil resources, or if the parameters of the proposed project will not impact potentially fossiliferous units. This decision is at the discretion of the qualified paleontologic monitor. If the monitoring program results in positive findings, then refer to PR-2 to PR-4.

**MM PR-2:** Preparation of recovered specimens to a point of identification and permanent preservation, including washing of sediments to recover small invertebrates and vertebrates. Preparation and stabilization of all recovered fossils are essential in order to fully mitigate adverse impacts to the resources.

**MM PR-3:** Identification and curation of specimens into an established, accredited museum repository with permanent retrievable paleontologic storage. These procedures are also essential steps in effective paleontologic mitigation and CEQA compliance. The paleontologist must have a written repository agreement in hand prior to the initiation of mitigation activities. Mitigation of adverse impacts to significant paleontologic resources is not complete until such curation into an established museum repository has been fully completed and documented.

**MM PR-4:** Preparation of a report of findings with an appended itemized inventory of specimens. The report and inventory, when submitted to the appropriate Lead Agency along with confirmation of the curation of recovered specimens into an established, accredited museum repository, will signify completion of the program to mitigate impacts to paleontologic resources.

With implementation of the mitigation measures above, it is anticipated that the proposed project will have a less than significant impact regarding paleontological resources.

- d) Disturb any human remains, including those interred outside of formal cemeteries? (Sources: 35)

**Discussion:** As there are no known archeological sites in the immediate vicinity of the project, it is not expected that the project will disturb human remains. In the event of a discovery or recognition of any human remains, Public Resources Code (PRC) §5097.98 must be followed. In this instance, once project-related earthmoving begins and if there is a discovery or recognition of any human remains in any location other than a dedicated cemetery, the following steps shall be taken:

- 1) There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until the County Coroner is contacted to determine if the remains are Native American and if an investigation of the cause of death is required. If the coroner determines the remains to be Native American, then the coroner shall contact the Native American Heritage Commission (NAHC) within 24 hours, and the NAHC shall identify the person or persons it believes to be the “most likely descendant” of the deceased Native American. The most likely descendent may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in PRC §5097.98, or
- 2) Where the following conditions occur, the landowner or his authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity either in accordance with the recommendations of the most likely descendant or on the property in a location not subject to further subsurface disturbance:
  - The NAHC is unable to identify a most likely descendent or the most likely descendent failed to make a

ISSUES (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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- recommendation within 48 hours after being notified by the commission,
- The descendant identified fails to make a recommendation; or
- The landowner or his authorized representative rejects the recommendation of the descendant, and the mediation by the NAHC fails to provide measures acceptable to the landowner. Compliance with State Law and Public Resources Code Section 5097.98 will reduce any potential impacts from the proposed project to less than significant levels.

Therefore, the project will have a less than significant impact regarding disturbance of human remains.

**XV. RECREATION.** Would the project:

- |                                                                                                                                                                                                                                               |                          |                          |                                     |                          |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|
| a) Would the project increase the use of existing neighborhood, community and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? (Sources: 1, 41, 2) | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment? (Sources: 1, 41, 2)                                   | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) Affect existing recreational opportunities? (Sources: 1, 41, 2)                                                                                                                                                                            | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

**Discussion:** a)-c) The project does not propose any recreational facilities onsite. The project could result in approximately 126 new residents to the City. Some of these residents will use local and regional parks as well as other recreational facilities, such as the adjacent Wardlow Park, located at 19761 Magnolia Street. However, due to the limited increase in population from the proposed project, the increase in park use within the City is not anticipated to be such that it would result in substantial deterioration of recreational facilities in the City.

Due to the intensity of use of the Huntington Valley Little League ball fields at Wardlow Park, there is a deficiency of permanent parking facilities on the City's park property. Users and visitors of the ball fields have been parking on the former Wardlow School property. Up until now, the property owner, the Fountain Valley School District, has not denied access for vehicles to park on its property and has allowed such access only as a temporary accommodation. The school district has the ability to terminate any vehicular access to its former Wardlow School property at anytime. The City had a one year license agreement it entered into with the Fountain Valley School District on July 3, 2006 wherein the City acknowledges that the City is responsible for providing parking for the Wardlow Park ball field facilities and that the school district is the owner with the sole and full authority and right to allow or deny access to its property. The license agreement expired after the one year and was never extended or amended.

The project proposes to build a parking lot adjacent to the easterly edge of the adjacent Wardlow Park's Little League baseball facilities on the land that the project will be dedicating to the City. The dedication of the park land will be done subsequent to and upon completion of the parking lot improvements.

The proposed project will comply with Chapter 254, Section 254.08, Parkland Dedication, of the City of Huntington Beach Zoning Code, which intends to implement the provisions of the Quimby Act that authorizes the City to require the dedication of land for park and recreational facilities or payment of in-lieu fees incident to and

ISSUES (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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as a condition of the approval of a tentative tract map or tentative parcel map for a residential subdivision.

Per the City of Huntington Beach Parkland Dedication Calculation, the project would dedicate approximately 0.66 acres of land. The project is proposing to construct a new landscaped parking lot with 80 parking spaces on approximately 0.82 acres of land it will dedicate to the City. Given that the project will dedicate 0.82 acres of land to the City of Huntington Beach in the form of the improved 80 space parking lot, the proposed project exceeds Quimby dedication requirements by approximately .16 acres. Therefore, there will be a less than significant impact.

Tri Pointe Homes proposes to construct a snack bar/equipment room/public restroom facility on the Wardlow Park grounds. This would replace an approximately 1,000 square-foot concession building that is presently located on the former Wardlow school site. It is not anticipated that construction of a snack bar/equipment room/public restroom facility would result in an adverse physical effect on the environment due to the nature and limited scale of the structure. The new facility is anticipated to be of a size comparable to that of the building removed. Therefore, the project would result in no substantial physical deterioration of parks and recreation facilities.

**XVI. AGRICULTURE RESOURCES.** In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:

- a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? (Sources: 1)
- 

**Discussion:** The project site is not located on land that is designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. The project site is located on an urban/developed setting and does not support agricultural uses because the project site is developed with a former school. Therefore, no impacts will occur.

- b) Conflict with existing zoning for agricultural use, or a Williamson Act contract? (Sources: 1)
- 

**Discussion:** No Williamson Act contracts exist on the project site. Additionally, the project site is not zoned for agricultural use and is developed with a former school. Therefore, no impacts will occur.

- c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use? (Sources: 1)
-

ISSUES (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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**Discussion:** The project site and surrounding areas are urbanized and developed with predominantly residential land uses, and are not used as farmland or for agricultural purposes. The proposed project would not result in the direct or indirect conversion of Farmland to non-agricultural uses. Therefore, no impacts will occur.

**XVII. GREENHOUSE GAS EMISSIONS.** Would the project:

- a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? (Sources: 63)

**Discussion:** A Draft Green Building Program has been developed and submitted by the applicant, the features of which would contribute to greenhouse gas reductions. Refer to the project description for additional details regarding this program. Greenhouse gases (GHG) are not presented in lbs/day like criteria pollutants; they are typically evaluated on an annual basis using the metric system. The project is located within the jurisdiction of the South Coast Air Quality Management District (SCAQMD). The SCAQMD is in the process of preparing recommended significance thresholds for greenhouse gases for local lead agency consideration (“SCAQMD draft local agency threshold”); however, the SCAQMD Board has not approved the thresholds as of the date of the NOP (South Coast Air Quality Management District 2010). The current draft thresholds consist of the following tiered approach:

Tier 1 consists of evaluating whether or not the project qualifies for any applicable exemption under CEQA.

Tier 2 consists of determining whether or not the project is consistent with a greenhouse gas reduction plan. If a project is consistent with a qualifying local greenhouse gas reduction plan, it does not have significant greenhouse gas emissions.

Tier 3 consists of screening values, which the lead agency can choose but must be consistent. A project’s construction emissions are averaged over 30 years and are added to a project’s operational emissions. Where SCAQMD is the lead agency on industrial projects, a threshold of 10,000 MTCO<sub>2</sub>e per year applies. SCAQMD is also encouraging other lead agencies to use the 10,000 MTCO<sub>2</sub>e per year for industrial projects. If a project’s commercial/residential emissions are under one of the following screening thresholds, then the project is less than significant:

- All land use types: 3,000 MTCO<sub>2</sub>e per year
- Based on land use type: residential: 3,500 MTCO<sub>2</sub>e per year; commercial: 1,400 MTCO<sub>2</sub>e per year; or mixed use: 3,000 MTCO<sub>2</sub>e per year

Tier 4 has the following options:

- Option 1: Reduce emissions from business as usual by a certain percentage
- Option 2: Early implementation of applicable AB 32 Scoping Plan measures
- Option 3, 2020 efficiency target: 4.8 MTCO<sub>2</sub>e/SP/year for projects and 6.6 MTCO<sub>2</sub>e/SP/year for plans;
- Option 3, 2035 target: 3.0 MTCO<sub>2</sub>e/SP/year for projects and 4.1 MTCO<sub>2</sub>e/SP/year for plans

Tier 5 would allow the purchase of mitigation offsets to achieve target significance threshold.

To determine whether the project is significant, this project utilizes the SCAQMD draft local agency threshold of 3,000 MTCO<sub>2</sub>e per year.

**Construction**

ISSUES (and Supporting Information Sources):

Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
--------------------------------	--------------------------------------------------------	------------------------------	-----------

The project would emit greenhouse gases from upstream emission sources and direct sources (combustion of fuels from worker vehicles and construction equipment). Table 19 summarizes the output results. (See Section V and CalEEMod output for details on construction timing).

**Table 19: Construction Greenhouse Gas Emissions**

Phase	Annual Emissions (MTCO <sub>2</sub> e)
Demolition - 2012	58.29
Grading - 2013	49.77
Construction - 2013-2014	709.24
Architectural Coating - 2013	16.70
Storm Drain	79.91
<b>Total</b>	<b>913.91</b>
<b>Total Amortized over 30 years</b>	<b>30.46</b>
Note: MTCO <sub>2</sub> e = metric tons of carbon dioxide equivalents (includes carbon dioxide, methane, and/or nitrous oxide). Source: CalEEMod output	

**Operation**

Operational or long-term emissions occur over the life of the project. The operational and amortized construction emissions for the project are shown in Table 20. As shown in Table 20, the major sources of operational greenhouse gases are from vehicles, contributing approximately 86 percent of the subtotal emissions.

As shown in the table below, the residential uses and construction of the storm drain would only generate approximately 1,035.50 MTCO<sub>2</sub>e per year, which is below the SCAQMD draft threshold of 3,000 MTCO<sub>2</sub>e per year. Impacts are considered to be less than significant.

**Table 20: Project Operational Greenhouse Gases**

Source	Emissions (MTCO <sub>2</sub> e per year)
Construction	30.46
Mobile Sources	716.58
Area	37.01
Energy	203.80
Water	21.54
Waste	26.11

ISSUES (and Supporting Information Sources):

Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Potentially Significant	Less Than Significant Impact	No Impact
--------------------------------	--------------------------------------------------------	-------------------------	------------------------------	-----------

Source	Emissions (MTCO <sub>2</sub> e per year)
Total	1,035.50
Note: MTCO <sub>2</sub> e = metric tons of carbon dioxide equivalents (includes carbon dioxide, methane, nitrous oxide, and/or hydrofluorocarbons). Source: CalEEMod output	

- b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases? (Sources: 63)
- 

**Discussion:** The City of Huntington Beach adopted an Energy Action Plan in April of 2011. Related specifically to energy issues, the Energy Action Plan (EAP) focuses Huntington Beach’s attention on the twin challenges of peak oil production and risks from climate change. A significant number of the mitigation measures overlap between the twin challenges. The most effective strategy is to eliminate energy waste, which will reduce pollution and reliance on declining oil production. Additionally, introducing resilience as a decision-making criterion will build least wasteful practices into business as usual. However, the EAP does not provide specific measures for non-municipal projects. The project will comply with the applicable Goals, Objectives, and Policies stated in the most recent update (1996) of the General Plan Air Quality Element.

The project’s emissions are well within SCAQMD draft thresholds and the level of GHG emissions generated by the project would not conflict with the goals of the State’s Scoping Plan, adopted pursuant to AB 32. Impacts are considered less than significant.

**XVIII. MANDATORY FINDINGS OF SIGNIFICANCE.**

- a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory? (Sources: 1, 30, 33, 31, 34, 35, 60)
- 

**Discussion:** With mitigation, the proposed project is not anticipated to impact any fish or wildlife, natural plant or animal communities, and/or rare and endangered species, and it is not anticipated to degrade the quality of the environment (refer to impact questions 7a-f, above). Further, with mitigation, the project would not have a significant impact regarding historical or cultural resources (refer to impact questions 14a-d, above). The project proposes to develop single family homes on a previously developed site. Therefore, with mitigation for potential biological and cultural resources impacts, less than significant impacts are anticipated to occur.

ISSUES (and Supporting Information Sources):

Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
--------------------------------------	--------------------------------------------------------------------	------------------------------------	-----------

- b) Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.) (Sources: 1-67)

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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**Discussion:** It is not anticipated that any cumulatively considerable impacts would occur because all potential impacts were found to be less than significant or were reduced to less than significant levels with implementation of mitigation and/or adherence to the City’s standard code requirements. The project does propose an amendment to the General Plan and Zoning designations of the project site however the proposed project is consistent with the General Plan regarding estimated growth within the City of Huntington Beach (per the Population and Housing section above). As described in the sections above, with mitigation, the proposed project would not result in a significant negative impact to the environment. Therefore the project is anticipated to have a less than significant impact in this regard.

- c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly? (Sources: 1-67)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Discussion:** The project includes various design features and commitments that, together with compliance with standard codes and regulations, would reduce potentially adverse impacts on human beings to a less than significant level. As discussed in responses for each of the preceding environmental topics, with mitigation, potential environmental impacts are anticipated to be reduced to a less than significant level.

**XIX. EARLIER ANALYSIS/SOURCE LIST.**

Earlier analyses may be used where, pursuant to tiering, program EIR, or other CEQA process, one or more effects have been adequately analyzed in an earlier EIR or negative declaration. Section 15063 (c)(3)(D). Earlier documents prepared and utilized in this analysis, as well as sources of information are as follows:

Earlier Documents Prepared and Utilized in this Analysis:

<b><u>Reference #</u></b>	<b><u>Document Title</u></b>	<b><u>Available for Review at:</u></b>
1	City of Huntington Beach General Plan	City of Huntington Beach Planning and Building Dept. 2000 Main St. Huntington Beach and at <a href="http://www.huntingtonbeachca.gov/Government/Departments/Planning/gp/index.cfm">http://www.huntingtonbeachca.gov/Government/Departments/Planning/gp/index.cfm</a>
2	City of Huntington Beach Zoning and Subdivision Ordinance	City of Huntington Beach City Clerk's Office, 2000 Main St. Huntington Beach and at <a href="http://www.huntingtonbeachca.gov/government/elected_officials/city_clerk/zoning_code/index.cfm">http://www.huntingtonbeachca.gov/government/elected_officials/city_clerk/zoning_code/index.cfm</a>
3	Code Requirements	See Attachment No. 1
4	Summary of Mitigation Measures	See Attachment No. 2
5	Project vicinity and aerial maps	See Exhibit 1, Exhibit 2, and Exhibit 3
6	City of Huntington Beach Geotechnical Inputs Report	City of Huntington Beach Planning and Building Dept. 2000 Main St. Huntington Beach
7	FEMA Flood Insurance Rate Map (December 3, 2009)	"
8	CEQA Air Quality Handbook South Coast Air Quality Management District (1993)	"
9	City of Huntington Beach CEQA Procedure Handbook	"
10	Trip Generation Handbook, 7 <sup>th</sup> Edition, Institute of Traffic Engineers	"
11	Airport Environs Land Use Plan for Joint Forces Training Base Los Alamitos (Oct. 17, 2002)	"
12	State Seismic Hazard Zones Map	"
13	Hazardous Waste and Substances Sites List	<a href="http://www.calepa.gov/sitecleanup/cortese">www.calepa.gov/sitecleanup/cortese</a>

<u>Reference #</u>	<u>Document Title</u>	<u>Available for Review at:</u>
14	City of Huntington Beach Municipal Code	City of Huntington Beach City Clerk's Office, 2000 Main St. Huntington Beach and at <a href="http://www.huntingtonbeachca.gov/government/charter_codes/municipal_code.cfm">http://www.huntingtonbeachca.gov/government/charter_codes/municipal_code.cfm</a>
15	City of Huntington Beach Solid Waste and Disposal Website Accessed December 15, 2011	<a href="http://www.huntingtonbeachca.gov/Government/Departments/Public_Works/maintenance/solidWaste/">http://www.huntingtonbeachca.gov/Government/Departments/Public_Works/maintenance/solidWaste/</a>
16	Rainbow Environmental Services Website. Accessed December 15, 2011	<a href="http://www.rainbowdisposal.com/index.php">http://www.rainbowdisposal.com/index.php</a>
17	Caballero, Jennifer, Customer Service Representative Rainbow Environmental Services Personal Communication: telephone. December 15, 2011	Not Applicable
18	Calrecycle Solid Waste Facility Website Accessed December 15, 2011	<a href="http://www.calrecycle.ca.gov/SWFacilities/Directory/30-AB-0360/">http://www.calrecycle.ca.gov/SWFacilities/Directory/30-AB-0360/</a>
19	Calrecycle Residential Waste Generation Rate Website Accessed December 15, 2011	<a href="http://www.calrecycle.ca.gov/wastechar/WasteGenRates/Residential.htm">http://www.calrecycle.ca.gov/wastechar/WasteGenRates/Residential.htm</a>
20	Cal Recycle History of California Solid Waste Law 2009 Website Accessed December 15, 2011	<a href="http://www.calrecycle.ca.gov/Laws/Legislation/CalHist/1985to1989.htm">http://www.calrecycle.ca.gov/Laws/Legislation/CalHist/1985to1989.htm</a> .
21	City of Huntington Beach AB 939 Website Accessed December 15, 2011.	<a href="http://www.huntingtonbeachca.gov/files/users/public_works/Diversion%20Rates.htm">http://www.huntingtonbeachca.gov/files/users/public_works/Diversion%20Rates.htm</a>
22	Caltrans Scenic Highway Program Website Accessed December 15, 2011	<a href="http://www.dot.ca.gov/hq/LandArch/scenic_highways/scenic_hwy.htm">http://www.dot.ca.gov/hq/LandArch/scenic_highways/scenic_hwy.htm</a>
23	U.S. Census Quickfacts Website Accessed December 16, 2011	<a href="http://quickfacts.census.gov/qfd/states/06/0636000.html">http://quickfacts.census.gov/qfd/states/06/0636000.html</a>
24	Air Nav Website Accessed December 16, 2011	<a href="http://www.airnav.com/airports/">http://www.airnav.com/airports/</a>
25	OC Air.com Website Accessed December 16, 2011	<a href="http://www.ocair.com/commissions/aluc/">http://www.ocair.com/commissions/aluc/</a> Accessed
26	Orange County Airport Land Use Commission, Airport Environs Land Use Plan for Heliports, Amended June 19, 2008. Website Accessed December 16, 2011	<a href="http://www.ocair.com/commissions/aluc/">http://www.ocair.com/commissions/aluc/</a>
27	Orange County Airport Land Use Commission, Airport Environs Land Use Plan for John Wayne Airport, Amended April 17, 2008. Website Accessed December 16, 2011	<a href="http://www.ocair.com/commissions/aluc/">http://www.ocair.com/commissions/aluc/</a>

<u>Reference #</u>	<u>Document Title</u>	<u>Available for Review at:</u>
28	City of Huntington Beach Fire Suppression Website Accessed December 19, 2011	<a href="http://www.huntingtonbeachca.gov/government/departments/Fire/fire_prevention_code_enforcement/">http://www.huntingtonbeachca.gov/government/departments/Fire/fire_prevention_code_enforcement/</a>
29	OCTA website Accessed December 19, 2011	<a href="http://www.octa.net/bus/feb11sysmap/index.html">http://www.octa.net/bus/feb11sysmap/index.html</a>
30	Google Earth Program	<a href="http://www.google.com/earth/index.html">http://www.google.com/earth/index.html</a>
31	CDFG NCCP Website Accessed December 19, 2011	<a href="http://www.dfg.ca.gov/habcon/nccp/status/index.html">http://www.dfg.ca.gov/habcon/nccp/status/index.html</a>
32	FEMA Map Service Center Accessed December 20, 2011	<a href="https://msc.fema.gov/webapp/wcs/stores/servlet/FemaWelcomeView?storeId=10001&amp;catalogId=10001&amp;langId=-1">https://msc.fema.gov/webapp/wcs/stores/servlet/FemaWelcomeView?storeId=10001&amp;catalogId=10001&amp;langId=-1</a>
33	City of Huntington Beach Municipal Code Website Accessed December 20, 2011	<a href="http://www.huntingtonbeachca.gov/Government/Charter_Codes/municipal_code.cfm">http://www.huntingtonbeachca.gov/Government/Charter_Codes/municipal_code.cfm</a>
34	Central & Coastal Subregion Natural Community Conservation Plan/Habitat Conservation Plan, Parts I & II: NCCP/HCP, July 17, 1996, pg I-15	Not Applicable
35	Michael Brandman Associates. 2009 Cultural Resources Records Search Results and Recommendations for the Wardlow School Site Project, City of Huntington Beach, California, March 9.	City of Huntington Beach Planning and Building Dept. 2000 Main St. Huntington Beach
36	City of Huntington Beach Fire Department Website Accessed January 4, 2012	<a href="http://www.huntingtonbeachca.gov/government/departments/fire/">http://www.huntingtonbeachca.gov/government/departments/fire/</a>
37	City of Huntington Beach Fire Operations Website Accessed January 4, 2012	<a href="http://www.huntingtonbeachca.gov/government/departments/Fire/Fire_Operations/">http://www.huntingtonbeachca.gov/government/departments/Fire/Fire_Operations/</a>
38	City of Huntington Beach Fire Stations Website Accessed January 4, 2012	<a href="http://www.huntingtonbeachca.gov/government/departments/Fire/Fire_Operations/FireStations/index.cfm">http://www.huntingtonbeachca.gov/government/departments/Fire/Fire_Operations/FireStations/index.cfm</a>
39	Huntington Beach Union High School District Accessed January 5, 2012	<a href="http://www.hbuhisd.org/dsp.page_content.cfm?pid=18">http://www.hbuhisd.org/dsp.page_content.cfm?pid=18</a>
40	Fountain Valley School District Website Accessed January 5, 2012	<a href="http://www.fvsd.k12.ca.us/">http://www.fvsd.k12.ca.us/</a>
41	City of Huntington Beach Parks Accessed January 5, 2012	<a href="http://huntingtonbeachca.gov/residents/parks_facilities/parks/index.cfm">http://huntingtonbeachca.gov/residents/parks_facilities/parks/index.cfm</a>
42	Phase One Inc. 2011 Phase I Environmental Site Assessment Report 9191 Pioneer Drive Huntington Beach, California. April	City of Huntington Beach Planning and Building Dept. 2000 Main St. Huntington Beach

<u>Reference #</u>	<u>Document Title</u>	<u>Available for Review at:</u>
43	Walden and Associates. 2012. Sewer Study for the Wardlow School Site Residential Development Tentative Tract Map 17239, City of Huntington Beach. January.	"
44	Walden and Associates. 2012. Water Quality Management Plan for the Wardlow School Site Residential Development. May 1.	"
45	Walden and Associates. 2012 Preliminary Hydrology Study for Wardlow School Site Residential Development May.	"
46	Bob Milani, Senior Civil Engineer, City of Huntington Beach Public Works Department. Response to Wardlow Service Information Request Letter	"
47	Robert Flores, Engineer, Verizon. Response to Wardlow Service Information Request Letter	"
48	Lieutenant Mitchell O'Brien, City of Huntington Beach Police Department. Response to Wardlow Service Information Request Letter	"
49	Garland Associates. 2012 Traffic Impact Analysis for the Proposed Residential Development at the Wardlow School Site May.	See Attachment No. 3
50	Orange County Transportation Authority (OCTA) CMP. 2011. 2011 Congestion Management Program. Website Accessed February 9, 2012	<a href="http://www.octa.net/cmp.aspx">http://www.octa.net/cmp.aspx</a> .
51	Ducan Lee, P.E., Principal Civil Engineer City of Huntington Beach Public Works Department. Response to Wardlow Service Information Request Letter	City of Huntington Beach Planning and Building Dept. 2000 Main St. Huntington Beach
52	Darin Maresh, City of Huntington Beach Fire Department. Response to Wardlow Service Information Request Letter	"
53	Jeanette Garcia, Technical Supervisor, Southern California Gas Company. February 22, 2012 Response to Wardlow Service Information Request Letter	"
54	Karen Darney, Design Service Representative, Southern California Edison. February 28, 2012 Response to Wardlow Service Information Request Letter.	"
55	Southern California Geotechnical. 2007. Geotechnical Investigation and Liquefaction Evaluation Proposed Residential Development Wardlow School Site. August 23.	"

<u>Reference #</u>	<u>Document Title</u>	<u>Available for Review at:</u>
56	Geoscience, Inc. 2007. Review of Geotechnical Investigation Redevelopment of Wardlow Elementary School Site. October 1.	"
57	Southern California Geotechnical. 2007. Response to Fountain Valley School District (Mission Geoscience) Review Proposed Residential Development Wardlow School Site. October 16.	"
58	Southern California Geotechnical. 2007. Additional Subsurface Exploration and Laboratory Testing Proposed Residential Development Wardlow School Site. October 17.	"
59	Petra. 2012. Geotechnical Review and Commentary of Existing Reports and Plans, Wardlow School Site Project. February 17.	"
60	Personal correspondence with staff biologist Scott Crawford of Michael Brandman Associates' (MBA) Natural Resources Management Division, Irvine office.	Not Applicable
61	Carrie Womack, Assistant Superintendent, Business Services, Huntington Beach Union High School District. March 12, 2012 Response to Wardlow Service Information Request Letter	City of Huntington Beach Planning and Building Dept. 2000 Main St. Huntington Beach
62	Stephen L. McMahon, Assistant Superintendent, Business Services, Fountain Valley School District. March 15, 2012 Response to Wardlow Service Information Request Letter	"
63	Michael Brandman Associates. 2012. Air Quality and Greenhouse Gas Analysis for the proposed project	"
64	South Coast Air Quality Management District 2007. Air Quality Management Plan for the South Coast Air Basin	South Coast Air Quality Management District
65	Michael Brandman Associates. 2012. Noise Analysis for the Proposed Project	City of Huntington Beach Planning and Building Dept. 2000 Main St. Huntington Beach
66	Focus Environmental Consulting, LLC. 2012. Asbestos and Lead Survey Report for the Wardlow Elementary School Site. March 30.	"
67	Project description and project plans from Tri Pointe Homes (dated May 15, 2012 and July 9, 2012)	See Attachment No. 4

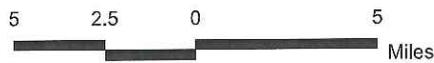
<u>Reference #</u>	<u>Document Title</u>	<u>Available for Review at:</u>
68	Noise Element Information for the City of Huntington Beach	<a href="http://www.huntingtonbeachca.gov/files/users/city_clerk/MC0840.pdf">http://www.huntingtonbeachca.gov/files/users/city_clerk/MC0840.pdf</a> and <a href="http://www.huntingtonbeachca.gov/files/users/planning/noise_element.pdf">http://www.huntingtonbeachca.gov/files/users/planning/noise_element.pdf</a> ).
69	Orange County Sanitation District Website Accessed July 12, 2012.	<a href="http://ocsanitationdistrict.org/construction/p2/default.asp">http://ocsanitationdistrict.org/construction/p2/default.asp</a>
70	Orange County Sanitation District Comprehensive Annual Financial Report for the Year Ended June 30, 2011. Accessed July 12, 2012.	<a href="http://www.ocsd.com/Modules/ShowDocument.aspx?documentid=12718">http://www.ocsd.com/Modules/ShowDocument.aspx?documentid=12718</a>
71	Personal Correspondence via email with OCSD representative C. Daisy Ovarrubias, Senior Staff Analyst on July 12, 2012.	Not Applicable.
72	Psomas. 2011. City of Huntington Beach 2010 Urban Water Management Plan, June. Accessed on July 13, 2012.	<a href="http://www.huntingtonbeachca.gov/files/users/public_works/urban-water-plan.pdf">http://www.huntingtonbeachca.gov/files/users/public_works/urban-water-plan.pdf</a>



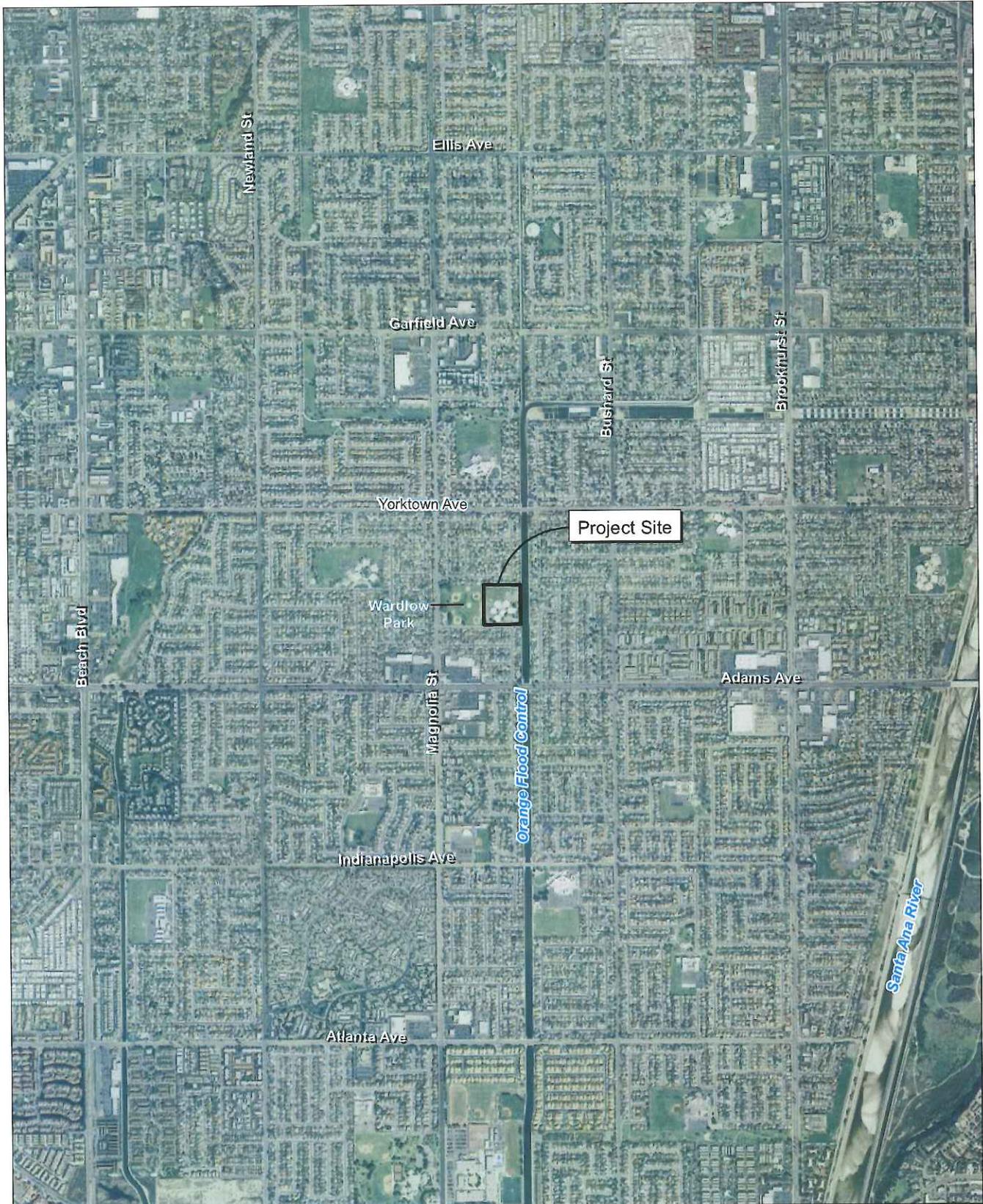
Source: Census 2000 Data, The CaSIL, MBA GIS 2012.



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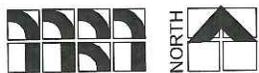
## Exhibit 1 Regional Location Map



Source: ESRI Aerial Imagery.

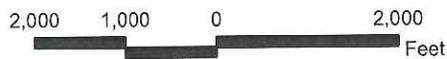
Exhibit 2

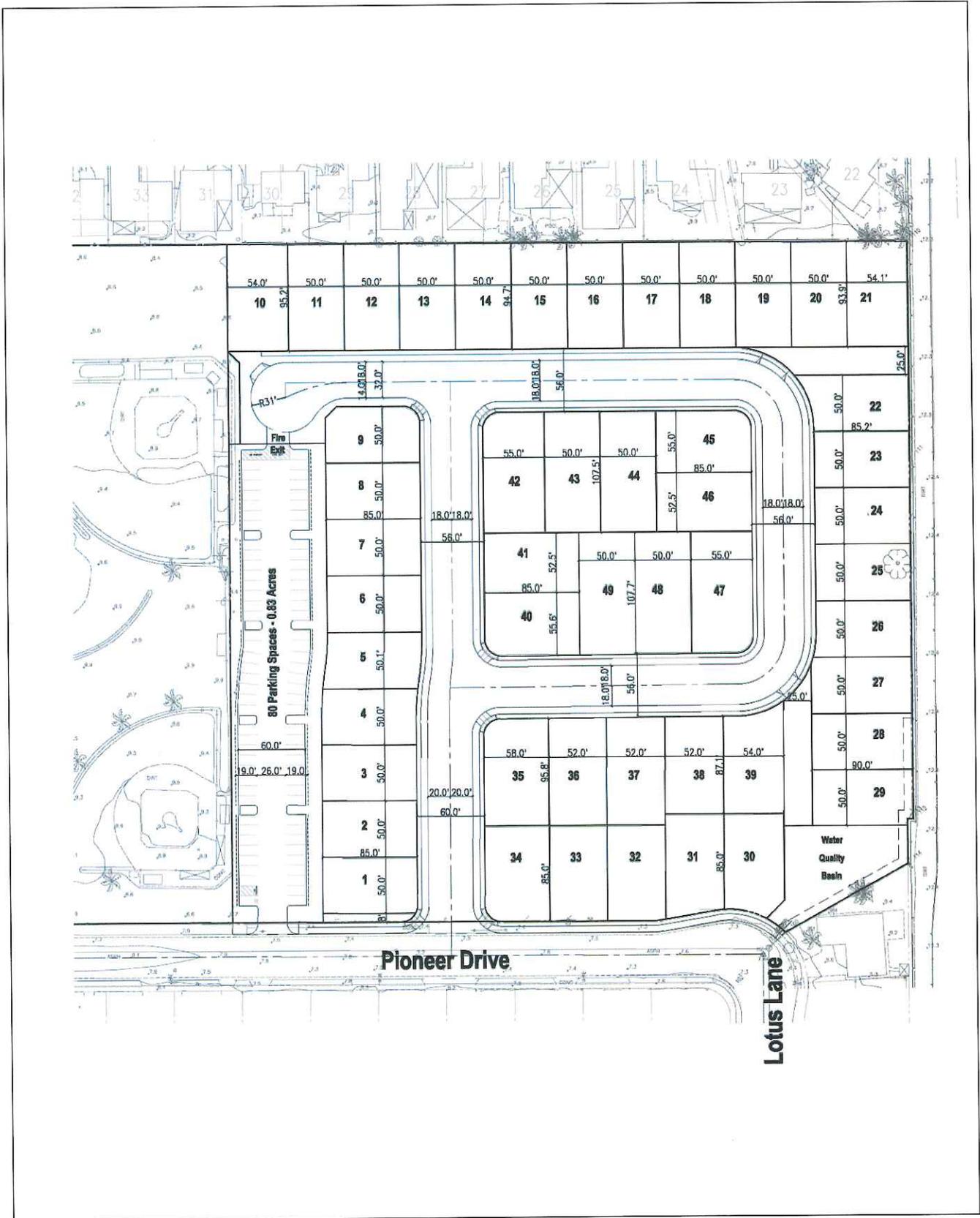
Local Vicinity Map  
Aerial Base



Michael Brandman Associates

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Source: Bassenian-Lagoni Architecture, Planning, Interiors, April 30, 2012.

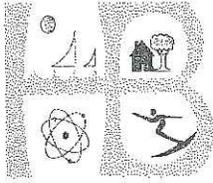


Michael Brandman Associates

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## Exhibit 3 Conceptual Site Plan

**Attachment No. 1**  
**Code Requirements**



# City of Huntington Beach

2000 MAIN STREET

CALIFORNIA 92648

## DEPARTMENT OF PLANNING AND BUILDING

[www.huntingtonbeachca.gov](http://www.huntingtonbeachca.gov)

Planning Division

714.536.5271

Building Division

714.536.5241

July 23, 2012

Michael C. Adams Associates  
P.O. Box 382  
Huntington Beach, CA 92648

**SUBJECT: GENERAL PLAN AMENDMENT NO. 08-04/ ZONING MAP AMENDMENT NO. 08-04/ ENVIRONMENTAL ASSESSMENT NO. 08-12/ CONDITIONAL USE PERMIT NO. 08-25/ TENTATIVE TRACT MAP 17239 (WARDLOW RESIDENTIAL SUBDIVISION)  
PROJECT IMPLEMENTATION CODE REQUIREMENTS**

Dear Mr. Adams,

In order to assist you with your development proposal, staff has reviewed the project and identified applicable city policies, standard plans, and development and use requirements, excerpted from the City of Huntington Beach Zoning & Subdivision Ordinance and Municipal Codes. This list is intended to help you through the permitting process and various stages of project implementation.

It should be noted that this requirement list is in addition to any "conditions of approval" adopted by the Planning Commission. Please note that if the design of your project or site conditions change, the list may also change.

If you would like a clarification of any of these requirements, an explanation of the Huntington Beach Zoning & Subdivision Ordinance and Municipal Codes, or believe some of the items listed do not apply to your project, and/or you would like to discuss them in further detail, please contact me at [AGonzales@surfcity-hb.org](mailto:AGonzales@surfcity-hb.org) or (714) 374-1547 and/or the respective source department (contact person below).

Sincerely,

  
Andrew Gonzales  
Associate Planner

Enclosures:

Fire Department requirements dated December 27, 2011  
Community Services Department dated January 3, 2012  
Public Works Department dated January 9, 2012  
Planning Division requirements dated July 23, 2012

ATTACHMENT NO. 1.1

Cc: Herb Fauland, Planning Manager  
Jason Kelley, Senior Planner  
Mark Carnahan, Building Division  
Debbie Debow, Public Works  
Jim Brown, Fire Department  
Joe Morelli, Fire Department  
Luis Gomez, Economic Development  
Tom Grable, Tri Pointe Homes, LLC, 20201 SW Birch Street, Ste. No. 100, Newport  
Beach, CA 92660  
Fountain Valley School District, 10055 Slater Avenue, Fountain Valley, CA 92708  
Project File



**CITY OF HUNTINGTON BEACH  
FIRE DEPARTMENT**  
**PROJECT IMPLEMENTATION CODE REQUIREMENTS**

**DATE:** DECEMBER 27, 2011  
**PROJECT NAME:** WARDLOW RESIDENTIAL SUBDIVISION  
**ENTITLEMENTS:** PLANNING APPLICATION NO. 08-123  
**PROJECT LOCATION:** 9191 PIONEER DRIVE, 92646 (NORTH SIDE OF PIONEER DRIVE, EAST OF MAGNOLIA AVENUE), HUNTINGTON BEACH, CA  
**PLANNER:** ANDREW GONZALES, ASSOCIATE PLANNER  
**TELEPHONE/E-MAIL:** (714) 374-1547/ AGONZALES@SURFCITY-HB.ORG  
**PLAN REVIEWER-FIRE:** DARIN MARESH, FIRE DEVELOPMENT SPECIALIST  
**TELEPHONE/E-MAIL:** (714) 536-5531/ DMARESH@SURFCITY-HB.ORG  
**PROJECT DESCRIPTION:** TO REVIEW DEVELOPMENT CONCEPT PLANS FOR THE SUBDIVISION AND DEVELOPMENT OF AN APPROXIMATELY 8.35-ACRE SITE (FORMERLY WARDLOW SCHOOL) FOR THE PURPOSES OF CREATING 50 NEW RESIDENTIAL LOTS WITH NEW SINGLE-FAMILY RESIDENCES. THE PROPOSED PROJECT WILL BE DESIGNED AS A PLANNED UNIT DEVELOPMENT UTILIZING VARYING LOTS SIZES AT 4,250 SQ. FT. (50 FT. X 85 FT.). THE PROJECT ALSO PROPOSED TO PROVIDE FOR ADDITIONAL PUBLIC PARKING FOR THE ADJACENT CITY PARK (APPROXIMATELY 28 SPACES ON 0.48 ACRES) AND AN INCREASED SETBACK OF 15 FT. FROM THE ADJACENT PARK BALL FIELD.

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The following is a list of code requirements deemed applicable to the proposed project based on plans received and dated December 7, 2011. The list is intended to assist the applicant by identifying requirements which must be satisfied during the various stages of project permitting and implementation. A list of conditions of approval adopted by the Planning Commission in conjunction with the requested entitlement(s), if any, will also be provided upon final project approval. If you have any questions regarding these requirements, please contact the Plan Reviewer- Fire: DARIN MARESH, FIRE DEVELOPMENT SPECIALIST.

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**PRIOR TO DEMOLITION, GRADING, SITE DEVELOPMENT, ISSUANCE OF GRADING PERMITS, BUILDING PERMITS, AND/OR CONSTRUCTION, THE FOLLOWING SHALL BE REQUIRED:**

**Fire Apparatus Access**

*Fire Access Roads* shall be provided and maintained in compliance with City Specification # 401, *Minimum Standards for Fire Apparatus Access*. Driving area shall be capable of supporting a fire apparatus (75,000 lbs and 12,000 lb point load). Minimum fire access road width is twenty-four feet (24') wide, with thirteen feet six inches (13' 6") vertical clearance. Fire access roads

fronting commercial buildings shall be a minimum width of twenty-six feet (26') wide, with thirteen feet six inches (13' 6") vertical clearance. For Fire Department approval, reference and demonstrate compliance with City Specification # 401 *Minimum Standards for Fire Apparatus Access* on the plans. (FD)

## Fire Hydrants and Water Systems

**Fire Hydrants** are required. Hydrants must be portrayed on the site plan. Hydrants shall be installed and in service **before** combustible construction begins. Installation of hydrants and service mains shall meet NFPA 13 and 24, 2002 Edition, Huntington Beach Fire Code Appendix B and C, and City Specification # 407 Fire Hydrant Installation Standards requirements. Maximum allowed velocity of fire flow in supply piping is 12 fps. Plans shall be submitted to Public Works and approved by the Public Works and Fire Departments. For Fire Department approval, portray the fire hydrants and reference compliance with NFPA 13 and 24, 2002 Edition, Huntington Beach Fire Code Appendix B and C, and City Specification #407 Fire Hydrant Installation Standards in the plan notes. (FD)

## Fire Suppression Systems

### Fire Sprinklers

**Residential (NFPA 13D) Automatic Fire Sprinklers** are required. NFPA 13D automatic fire sprinkler systems are required per Huntington Beach Fire Code for new residential one and two family dwellings.

Separate plans (three sets) shall be submitted to the Fire Department for permits and approval.

Automatic fire sprinkler systems must be maintained operational at all times.

For Fire Department approval, reference that a fire sprinkler system will be installed in compliance with the Huntington Beach Fire Code, NFPA 13, and City Specification # 420 - *Automatic Fire Sprinkler Systems* in the plan notes.

**NOTE:** When buildings under construction are more than one (1) story in height and required to have automatic fire sprinklers, the fire sprinkler system shall be installed and operational to protect all floors lower than the floor currently under construction. Fire sprinkler systems for the current floor under construction shall be installed, in-service, inspected and approved prior to beginning construction on the next floor above. (FD)

### Addressing and Street Names

**Residential (SFD) Address Numbers** shall be installed to comply with City Specification #428, Premise Identification. Number sets are required on front of the structure in a contrasting color with the background and shall be a minimum of four inches (4") high with one and one half inch (1/2") brush stroke. For Fire Department approval, reference compliance with City Specification

#428, Premise Identification in the plan notes and portray the address location on the building.  
(FD)

**THE FOLLOWING CONDITIONS SHALL BE MAINTAINED DURING CONSTRUCTION:**

- a. Fire/Emergency Access And Site Safety shall be maintained during project construction phases in compliance with HBFC Chapter 14, Fire Safety During Construction And Demolition. (FD)
- b. Fire/Emergency Access And Site Safety shall be maintained during project construction phases in compliance with City Specification #426, Fire Safety Requirements for Construction Sites. (FD)

**OTHER:**

- a. Discovery of additional soil contamination or underground pipelines, etc., must be reported to the Fire Department immediately and the approved work plan modified accordingly in compliance with City Specification #431-92 Soil Clean-Up Standards. (FD)
- b. Outside City Consultants The Fire Department review of this project and subsequent plans may require the use of City consultants. The Huntington Beach City Council approved fee schedule allows the Fire Department to recover consultant fees from the applicant, developer or other responsible party. (FD)

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Fire Department City Specifications may be obtained at:  
Huntington Beach Fire Department Administrative Office  
City Hall 2000 Main Street, 5<sup>th</sup> floor  
Huntington Beach, CA 92648

or through the City's website at [www.surfcity-hb.org](http://www.surfcity-hb.org)

If you have any questions, please contact the Fire Prevention Division at (714) 536-5411.



**CITY OF HUNTINGTON BEACH  
COMMUNITY SERVICES DEPARTMENT  
PROJECT IMPLEMENTATION CODE REQUIREMENTS**

**DATE:** JANUARY 3, 2012

**PROJECT NAME:** WARDLOW RESIDENTIAL SUBDIVISION

**PLANNING APPLICATION NO.:** PLANNING APPLICATION NO. 08-123

**ENTITLEMENTS:** GENERAL PLAN AMENDMENT NO. 08-004; ZONING MAP AMENDMENT NO. 08-004; ENVIRONMENTAL ASSESSMENT NO. 08-012; TENTATIVE TRACT MAP NO. 17239; CONDITIONAL USE PERMIT NO. 08-025

**PROJECT LOCATION:** 9191 PIONEER DRIVE, 92646 (NORTH SIDE OF PIONEER DRIVE, EAST OF MAGNOLIA AVENUE)

**PROJECT PLANNER:** ANDREW GONZALES, ASSOCIATE PLANNER

**PLAN REVIEWER:** DAVE DOMINGUEZ, FACILITIES AND DEVELOPMENT DIVISION

**TELEPHONE/E-MAIL:** (714) 374-5309/ [DDOMINGUEZ@SURFCITY-HB.ORG](mailto:DDOMINGUEZ@SURFCITY-HB.ORG)

**PROJECT DESCRIPTION:** TO REVIEW DEVELOPMENT CONCEPT PLANS FOR THE SUBDIVISION AND DEVELOPMENT OF AN APPROXIMATELY 8.3-ACRE SITE (FORMERLY WARDLOW SCHOOL) FOR THE PURPOSES OF CREATING 49 NEW RESIDENTIAL LOTS WITH NEW SINGLE-FAMILY RESIDENCES. THE PROPOSED PROJECT WILL BE DESIGNED AS A PLANNED UNIT DEVELOPMENT UTILIZING VARYING LOT SIZES AT APPROXIMATELY 4,250 SQ. FT. (50 FT. X 85 FT.). ALL STREETS, LANDSCAPING, STORM DRAINS AND SEWERS FACILITIES WILL BE PRIVATELY MAINTAINED BY A HOMEOWNERS ASSOCIATION. THE STREETS WILL BE SIZED CONSISTENT WITH CITY PUBLIC STREET STANDARDS, INCLUDING PARKWAYS AND ON-STREET PUBLIC PARKING (36 FT. CURB-TO-CURB INTERIOR STREETS, 4 FT. SIDEWALK, AND 6 FT. PARKWAY ON EACH SIDE). THE PROJECT ALSO PROPOSES TO PROVIDE FOR ADDITIONAL PUBLIC PARKING FOR THE ADJACENT CITY PARK (APPROXIMATELY 80 SPACES ON 0.83 ACRES).

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The following is a list of code requirements deemed applicable to the proposed project based on plans received and dated September 6, 2011. The list is intended to assist the applicant by identifying requirements which must be satisfied during the various stages of project permitting and implementation. A list of conditions of approval adopted by the Planning Commission in conjunction with the requested entitlement(s), if any, will also be provided should the project be approved. If you have any questions regarding these requirements, please contact the Plan Reviewer.

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Applicable park and recreation fees defined under Huntington Beach Zoning and Subdivision Ordinance (HBZSO) Chapters 230 – *Site Standards* and 254 – *Dedications and Reservations* shall be applied to the project based upon the proposed development of 81 residential units.



## CITY OF HUNTINGTON BEACH

### PUBLIC WORKS INTERDEPARTMENTAL COMMUNICATION

#### PROJECT IMPLEMENTATION CODE REQUIREMENTS

**DATE:** JANUARY 9, 2012

**PROJECT NAME:** WARDLOW RESIDENTIAL SUBDIVISION

**ENTITLEMENTS:** GENERAL PLAN AMENDMENT NO. 2008-004; ZONING MAP AMENDMENT NO. 2008-004; ENVIRONMENTAL ASSESSMENT NO. 2008-012; TENTATIVE TRACT MAP NO. 17239; AND CONDITIONAL USE PERMIT NO. 2008-025

**PLNG APPLICATION NO.** 2008-0123

**DATE OF PLANS:** NOVEMBER 6, 2011

**PROJECT LOCATION:** 9191 PIONEER DRIVE, 92646 (NORTH SIDE OF PIONEER DRIVE, EAST OF MAGNOLIA AVENUE)

**PROJECT PLANNER:** ANDREW GONZALES, ASSOCIATE PLANNER

**TELEPHONE/E-MAIL:** (714) 374-1547 / [AGONZALES@SURFCITY-HB.ORG](mailto:AGONZALES@SURFCITY-HB.ORG)

**PLAN REVIEWER:** BOB MILANI, SENIOR CIVIL ENGINEER *BM*

**TELEPHONE/E-MAIL:** 714-375-1735 / [BOB.MILANI@SURFCITY-HB.ORG](mailto:BOB.MILANI@SURFCITY-HB.ORG)

**PROJECT DESCRIPTION:** TO REVIEW DEVELOPMENT CONCEPT PLANS FOR THE SUBDIVISION AND DEVELOPMENT OF AN APPROXIMATELY 8.35-ACRE SITE (FORMERLY WARDLOW SCHOOL) FOR THE PURPOSES OF CREATING 50 NEW RESIDENTIAL LOTS WITH NEW SINGLE-FAMILY RESIDENCES. THE PROPOSED PROJECT WILL BE DESIGNED AS A PLANNED UNIT DEVELOPMENT UTILIZING VARYING LOTS SIZES AT 4,250 SQ. FT. (50 FT. X 85 FT.). THE PROJECT ALSO PROPOSED TO PROVIDE FOR ADDITIONAL PUBLIC PARKING FOR THE ADJACENT CITY PARK (APPROXIMATELY 28 SPACES ON 0.48 ACRES) AND AN INCREASED SETBACK OF 15 FT. FROM THE ADJACENT PARK BALL FIELD.

THE FOLLOWING IS A LIST OF CODE REQUIREMENTS DEEMED APPLICABLE TO THE PROPOSED PROJECT BASED ON THE CONCEPTUAL SITE PLAN RECEIVED FROM TRIPOINT HOMES ON SEPTEMBER 6, 2011.

IT SHALL BE NOTED THAT SINCE THE SUBMITTAL WAS INCOMPLETE AND DID NOT INCLUDE THE FOLLOWING ITEMS, THESE CODE REQUIREMENTS ARE NOT FINAL AND ARE SUBJECT TO CHANGE UPON RECEIPT OF SAID DOCUMENTS:

- PRELIMINARY HYDROLOGY/HYDRAULIC STUDY
- PRELIMINARY WQMP
- PRELIMINARY SEWER STUDY
- PRELIMINARY UTILITY PLAN (SEWER, WATER, STORM DRAIN)
- TENTATIVE TRACT MAP
- TRAFFIC STUDY

**TENTATIVE TRACT MAP NO. 17239**

**THE FOLLOWING DEVELOPMENT REQUIREMENTS SHALL BE COMPLETED PRIOR TO RECORDATION OF THE FINAL TRACT MAP UNLESS OTHERWISE STATED. BONDING MAY BE SUBSTITUTED FOR CONSTRUCTION IN ACCORDANCE WITH PROVISIONS OF THE SUBDIVISION MAP ACT:**

1. The following shall be shown as a dedication to the City of Huntington Beach on the final tract map. (ZSO 230.084A & 253.10K)
  - a. The water system and appurtenances for the entire project shall be a public system.
  - b. The sewer system shall be a public system.
  - c. A blanket easement over the private streets and access ways for Police and Fire Department access purposes.
  - d. A blanket easement over the private streets and access ways for water utility and maintenance purposes per City Standard Plan No. 600.
  - e. A blanket easement over the private streets and access ways for sewer utility and maintenance purposes per City Standard Plan No. 500.
  - f. A Public Utility Easement per City Standard Plan No. 104.
  - g. A water utility easement shall be dedicated to and accepted by the City of Huntington Beach, covering the public water facilities and appurtenances located within the project site. The easement shall be a minimum total width of 10-ft clear (5 ft either side of the water pipeline or appurtenance), unobstructed paved or landscaped surface, pursuant to Water Standards. Where access is restricted or impacted by structures, walls, curbs, etc, the easement width shall be 20 feet to allow for equipment access and maintenance operations. No structures, parking spaces, trees, curbs, walls, sidewalks, etc. shall be allowed within the easement. No modifications to the water facilities and pavement located within the easement shall be allowed without proper notification and written approval from the City in advance. Such modifications may include, but are not limited to, connections to the water system, pavement overlay, parking lot re-striping, and parking lot reconfiguration. Utilities Division personnel shall have access to public water facilities and appurtenances at all times. (ZSO 255.04)
2. The storm drain system located within private streets shall be private and maintained by the Homeowner's Association.
3. A final hydrology and hydraulic study for the runoff from this project and its impact to the existing downstream storm drainage system shall be submitted to Public Works for review and approval. This project shall be responsible for mitigating the increased storm water runoff from this property based on the net difference between the existing site condition and the proposed developed condition for 10, 25 and 100-year storms under current County and City criteria. Possible mitigation measures to manage increased storm water runoff may include on-site attenuation and/or construction of downstream drainage improvements per the 2005 Master Plan of Drainage. The study and the proposed drainage improvements shall include on-site, privately maintained clarifiers and/or other devices to control the quality of run-off water from the development. The study shall also justify final pad elevations on the site in conformance with the latest FEMA requirements and City Standard Plan No. 300. (ZSO 255.04)
4. A sewer study shall be submitted for review and approval. (ZSO 255.04)

5. Confirmation from the Orange County Sanitation District (OCSD), to accept the discharge from the new development into the existing OCSD sewer, shall be obtained. A copy shall be provided to the City of Huntington Beach, Public Works Department.
6. A qualified, Licensed Engineer shall prepare a detailed soils and geotechnical analysis. This analysis shall include Phase II Environmental on-site soil sampling in areas not previously investigated and laboratory testing of materials to provide detailed recommendations for grading, chemical and fill properties, liquefaction, foundations, landscaping, dewatering, ground water, retaining walls, pavement sections and utilities. (ZSO 251.06 & 253.12)
7. A Traffic Impact Analysis, prepared by a Licensed Traffic Engineer, shall be submitted to Public Works for review and approval. (GP I-CE 4)
8. The grading and improvement plans shall be submitted to the Department of Public Works for review and approval. The engineer shall submit cost estimates for determining bond amounts. (ZSO 255.16C & MC 17.05)
9. A Homeowners' Association(s) (HOA) shall be formed and described in the CC&R's to manage the following for the total project area:
  - a. On-site sewer and drainage systems
  - b. Best Management Practices (BMP's) as per the approved Water Quality Management Plan (WQMP)
  - c. Onsite landscaping and irrigation improvements

The aforementioned items shall be addressed in the development's CC&R's.
10. The Homeowners' Association (HOA) shall enter into a Special Utility Easement Agreement with the City of Huntington Beach for maintenance and control of the area within the public water pipeline easement, which shall address repair to any enhanced pavement, etc., if the public water pipelines and/or appurtenances require repair or maintenance. The HOA shall be responsible for repair and replacement of any enhanced paving due to work performed by the City in the maintenance and repair of any public water pipeline. The Special Utility Easement Agreement shall be referenced in the CC&R's. (Resolution 2003-29)
11. If the project is developed in phases, then a phasing map shall be submitted for approval by the Planning, Public Works and Fire Departments showing improvements to be constructed. All required infrastructures including all public streets shall be designed with the first phase. The phasing plan shall include public improvements, construction employee parking, utility relocation, material location, and fire access. (ZSO 253.12L)
12. All improvement securities (Faithful Performance, Labor & Material and Monument Bonds) and Subdivision Agreement shall be posted with the Public Works Department and approved as to form by the City Attorney. (ZSO 255.16)
13. A Certificate of Insurance shall be filed with the Public Works Department and approved as to form by the City Attorney. (ZSO 253.12K)
14. All applicable Public Works fees shall be paid. Fees shall be calculated based on the currently approved rate at the time of payment unless otherwise stated. (ZSO 250.16)

**CONDITIONAL USE PERMIT NO. 2008-025**

**THE FOLLOWING DEVELOPMENT REQUIREMENTS SHALL BE COMPLETED PRIOR TO  
ISSUANCE OF A DEMOLITION PERMIT:**

15. Applicant shall provide a consulting arborist report on all the existing trees. Said report shall quantify, identify, size and analyze the health of the existing trees. The report shall also recommend how the existing trees that are to remain (if any) shall be protected and how far construction/grading shall be kept from the trunk. (Resolution 4545)
  - a. Existing mature trees that are to be removed must be replaced at a 2 for 1 ratio with a 36" box tree or palm equivalent (13'-14' of trunk height for Queen Palms and 8'-9' of brown trunk).

**THE FOLLOWING DEVELOPMENT REQUIREMENTS SHALL BE COMPLETED PRIOR TO  
ISSUANCE OF A PRECISE GRADING PERMIT:**

16. The Final Tract Map shall be recorded with the County of Orange.
17. A Precise Grading Plan, prepared by a Licensed Civil Engineer, shall be submitted to the Public Works Department for review and approval. Final grades and elevations on the grading plans shall not vary by more than 1-foot from the grades and elevations on the approved tentative tract map and site plan, unless otherwise required by these development requirements and/or conditions of approval, and as directed by the Department of Public Works. (MC 17.05/ZSO 255.04)
18. Improvement Plans, prepared by a Licensed Civil Engineer, shall be submitted to the Public Works Department for review and approval. (MC 17.05/ZSO 255.04) The following improvements shall be shown on the plan:
  - a. New curb, gutter, sidewalk and new pavement to the centerline of Pioneer Drive per City Standard Plan Nos. 102, 202 and 207, along the Pioneer Drive frontage within a 30-foot half-street right-of-way. (ZSO 255.04)
  - b. Twenty-five foot radius curb returns, with the appropriate right-of-way dedication, shall be constructed at all Pioneer Drive intersections. (ZSO 255.04)
  - c. Curb ramps compliant with current ADA requirements shall be installed at all intersection curb returns. (ADA)
  - d. All driveways on Pioneer Drive shall be removed and replaced with curb, gutter and sidewalk constructed per City Standard Plans 202 and 207. (ZSO 230.84)
  - e. The City Park parking lot driveway shall be constructed per Public Works Standard Plan No. 211. (ZSO 255.04)
  - f. All onsite cul-de-sacs and street knuckles shall be designed and constructed per City Standard Plan Nos. 105 and 106. (ZSO 255.04)
  - g. A 25-foot sight triangle shall be provided at all the intersections of this project. (ZSO 230.88)
  - h. The sewer facilities shall be designed per the final approved sewer study and City Standards.
  - i. All drainage facilities shall be designed per the final approved hydrology and hydraulics study and current County and City Standards. Note that once the storm water from the

- proposed development is treated per the project WQMP, it shall be contained in an acceptable storm drain pipeline. (ZSO 255.04)
- j. A public on-site looped water system with two connections to the City's public water system along Yorktown Avenue shall be constructed per Water Standards. The water main shall be a minimum of 8-inches in size. (ZSO 255.04)
  - k. Each dwelling unit shall have a separate domestic water service and meter, installed per Water Standards, and sized to meet the minimum requirements set by the California Plumbing Code (CPC). The domestic water service shall be a minimum of 1-inch in size. (ZSO 255.044)
  - l. Each separate landscaping area (i.e., Homeowner's Association (HOA) property, public common landscaping area(s), proposed City Park, etc.) shall have a separate irrigation meter(s) and service(s). The irrigation water service(s) shall be a minimum of 1-inch in size. (ZSO 232)
  - m. Separate backflow protection devices shall be installed per Water Standards for all irrigation water services. (Resolution 5921 and Title 17)
  - n. The existing domestic water services and meters shall be abandoned per Water Standards. (ZSO 255.04)
  - o. Due to the current State mandate to conserve water, the applicant shall implement water conservation measures and water efficient fixtures in the building and landscaping design to minimize adverse impacts to the City's current water supply. The landscaping design and plant material proposed for the City Park shall be drought tolerant and water efficient. (MC 14.18)
- 19. Street lighting levels shall be adequately provided on Yorktown Avenue along the project frontage. Submit a photometric study, with calculations, showing the lighting levels for the roadway and pedestrian areas on Yorktown Avenue. If new street lights are required based on the photometric study, the street lighting plans shall be prepared by a Licensed Civil or Electrical Engineer and submitted to the Public Works Department for review and approval. Lighting standards shall be per the City of Huntington Beach guidelines. (ZSO 230.84)
  - 20. A privately maintained street lighting system, consistent with City standards, shall be constructed along the private streets and access ways in this subdivision. A photometric analysis shall be provided which demonstrates that such lighting will not negatively impact the existing residences to the north. (ZSO 255)
  - 21. A signing and striping plan for this project shall be prepared by a Licensed Civil or Traffic Engineer and be submitted to the Public Works Department for review and approval. The plans shall be prepared according to the City of Huntington Beach Signing and Striping Plan Preparation Guidelines. (ZSO 230.84)
  - 22. Traffic Control Plans, prepared by a Licensed Civil or Traffic Engineer, shall be prepared in accordance with the latest edition of the City of Huntington Beach Construction Traffic Control Plan Preparation Guidelines and submitted for review and approval by the Public Works Department. (Construction Traffic Control Plan Preparation Guidelines)
  - 23. A Landscape and Irrigation Plan, prepared by a Licensed Landscape Architect shall be submitted to the Public Works Department for review and approval by the Public Works and Planning Departments. (ZSO 232.04)

- a. Existing mature trees that are to be removed must be replaced at a 2 for 1 ratio with a 36" box tree or palm equivalent (13'-14' of trunk height for Queen Palms and 8'-9' of brown trunk).
  - b. "Smart irrigation controllers" and/or other innovative means to reduce the quantity of runoff shall be installed. (ZSO 232.04D)
  - c. Standard landscape code requirements apply. (ZSO 232)
24. All landscape planting, irrigation and maintenance shall comply with the City Arboricultural and Landscape Standards and Specifications. (ZSO 232.04B)
25. Landscaping plans should utilize native, drought-tolerant landscape materials where appropriate and feasible. (DAMP)
26. The Consulting Arborist (approved by the City Landscape Architect) shall review the final landscape tree planting plan and approve in writing the selection and locations proposed for new trees and the protection measures and locations of existing trees to remain. Said Arborist report shall be incorporated onto the Landscape Architect's plans as construction notes and/or construction requirements. The report shall include the Arborist's name, certificate number and the Arborist's wet signature on the final plan. (Resolution-4545)
27. Prior to the issuance of any grading or building permits for projects that will result in soil disturbance of one or more acres of land, the applicant shall demonstrate that coverage has been obtained under the Waste Discharge Requirements for Discharges of Storm Water Runoff Associated with Construction and Land Disturbance Activities (Order No. 2009-0009-DWQ) [General Construction Permit] by providing a copy of the Notice of Intent (NOI) submitted to the State of California Water Resources Control Board and a copy of the subsequent notification of the issuance of a Waste Discharge Identification (WDID) Number. Projects subject to this requirement shall prepare and implement a Stormwater Pollution Prevention Plan (SWPPP) conforming to the current National Pollution Discharge Elimination System (NPDES) requirements shall be submitted to the Department of Public Works for review and acceptance. A copy of the current SWPPP shall be kept at the project site and another copy to be submitted to the City. (DAMP)
28. A Project Water Quality Management Plan (WQMP) conforming to the current Waste Discharge Requirements Permit for the County of Orange (Order No. R8-2009-0030) [MS4 Permit] prepared by a Licensed Civil Engineer, shall be submitted to the Department of Public Works for review and acceptance. The WQMP shall address Section XII of the MS4 Permit and all current surface water quality issues and shall include the following:
- a. Low Impact Development.
  - b. Discusses regional or watershed programs (if applicable).
  - c. Addresses Site Design BMPs (as applicable) such as minimizing impervious areas, maximizing permeability, minimizing directly connected impervious areas, creating reduced or "zero discharge" areas, and conserving natural areas.
  - d. Incorporates the applicable Routine Source Control BMPs as defined in the Drainage Area Management Plan. (DAMP)
  - e. Incorporates Treatment Control BMPs as defined in the DAMP.
  - f. Generally describes the long-term operation and maintenance requirements for the Treatment Control BMPs.

- g. Identifies the entity that will be responsible for long-term operation and maintenance of the Treatment Control BMPs.
- h. Describes the mechanism for funding the long-term operation and maintenance of the Treatment Control BMPs.
- i. Includes an Operations and Maintenance (O&M) Plan for all structural BMPs.
- j. After incorporating plan check comments of Public Works, three final WQMPs (signed by the owner and the Registered Civil Engineer of record) shall be submitted to Public Works for acceptance. After acceptance, two copies of the final report shall be returned to applicant for the production of a single complete electronic copy of the accepted version of the WQMP on CD media that includes:
  - i. The 11" by 17" Site Plan in .TIFF format (400 by 400 dpi minimum).
  - ii. The remainder of the complete WQMP in .PDF format including the signed and stamped title sheet, owner's certification sheet, Inspection/Maintenance Responsibility sheet, appendices, attachments and all educational material.
- k. The applicant shall return one CD media to Public Works for the project record file.

**THE FOLLOWING DEVELOPMENT REQUIREMENTS SHALL BE COMPLIED WITH DURING GRADING OPERATIONS:**

- 29. All construction materials, wastes, grading or demolition debris and stockpiles of soils, aggregates, soil amendments, etc. shall be properly covered, stored and secured to prevent transport into surface or ground waters by wind, rain, tracking, tidal erosion or dispersion. (DAMP). Contractor shall ensure that a Qualified SWPPP Practitioner (QSP) is continually implementing the project SWPPP.
- 30. An Encroachment Permit is required for all work within the City's right-of-way. (MC 12.38.010/MC 14.36.030)

**THE FOLLOWING DEVELOPMENT REQUIREMENTS SHALL BE COMPLETED PRIOR TO ISSUANCE OF A BUILDING PERMIT:**

- 31. A Precise Grading Permit shall be issued.

**THE FOLLOWING DEVELOPMENT REQUIREMENTS SHALL BE COMPLETED PRIOR TO FINAL INSPECTION OR OCCUPANCY OF FIRST UNIT:**

- 32. Complete all improvements as shown on the approved grading, and landscape and improvement plans. (MC 17.05)
- 33. The current tree code requirements shall apply to this site. (ZSO 232)
  - a. Existing trees to remain on site shall not be disfigured or mutilated, (ZSO 232.04E), and,
  - b. General tree requirements, regarding quantities and sizes, (ZSO 232.08B and C).

34. All landscape irrigation and planting installation shall be certified to be in conformance to the City approved landscape plans by the Landscape Architect of record in written form to the City Landscape Architect. (ZSO 232.04D)
35. Applicant shall provide City with CD media TIFF images (in City format) and CD (AutoCAD only) copy of complete City Approved landscape construction drawings as stamped "Permanent File Copy" prior to starting landscape work. Copies shall be given to the City Landscape Architect for permanent City record.
36. Prior to the first occupancy of Phase 1 (excluding model homes), all associated onsite and offsite improvements, including the public park, as shown on the approved grading, landscape and improvement plans shall be completed. Prior to the first occupancy of each succeeding phase, all associated onsite improvements as shown on the approved grading, landscape and improvement plans shall be completed. (MC 17.05)
37. Prior to grading or building permit close-out and/or the issuance of a certificate of use or a certificate of occupancy, the applicant shall:
  - c. Demonstrate that all structural Best Management Practices (BMPs) described in the Project WQMP have been constructed and installed in conformance with approved plans and specifications.
  - d. Demonstrate all drainage courses, pipes, gutters, basins, etc. are clean and properly constructed.
  - e. Demonstrate that applicant is prepared to implement all non-structural BMPs described in the Project WQMP.
  - f. Demonstrate that an adequate number of copies of the approved Project WQMP are available for the future occupiers.
38. All landscape, irrigation and hardscape improvements for the public park shall be completed. The park shall be temporarily fenced for a period of 15 months following the completion of park improvements to allow for a 90-day plant establishment and one-year maintenance period to be completed by the applicant. All potential buyers of the new residential units and all property owners and occupants within a 1000-foot radius of the subject property shall receive written notification of the delayed opening of the public park. Evidence of the written notification shall be submitted to the Department of Public Works. (Resolution 4545)
39. Traffic impact fees shall be paid at the rate applicable at the time of Building Permit Issuance. This project will be assessed a traffic impact fee based on the projected additional trips calculated by City staff or the approved Traffic Impact Analysis. (MC 17.65)
40. All existing overhead utilities along the project's frontage shall be undergrounded. (ZSO 255.04G)
41. All new utilities shall be undergrounded. (MC 17.64)
42. All applicable Public Works fees shall be paid at the current rate unless otherwise stated, per the Public Works Fee Schedule adopted by the City Council and available on the city web site at [http://www.surfcity-hb.org/files/users/public\\_works/fee\\_schedule.pdf](http://www.surfcity-hb.org/files/users/public_works/fee_schedule.pdf). (ZSO 240.06/ZSO 250.16)
43. The Water Ordinance #14.52, the "Water Efficient Landscape Requirements" apply for projects with 2500 square feet of landscaping and larger. (MC 14.52)



**CITY OF HUNTINGTON BEACH  
PLANNING AND BUILDING DEPARTMENT  
PLANNING DIVISION**

**PROJECT IMPLEMENTATION CODE REQUIREMENTS**

**DATE:** JULY 23, 2012

**PROJECT NAME:** WARDLOW RESIDENTIAL SUBDIVISION

**PLANNING APPLICATION NO.:** PLANNING APPLICATION NO. 08-123

**ENTITLEMENTS:** GENERAL PLAN AMENDMENT NO. 08-004; ZONING MAP AMENDMENT NO. 08-004; ENVIRONMENTAL ASSESSMENT NO. 08-012; TENTATIVE TRACT MAP NO. 17239; CONDITIONAL USE PERMIT NO. 08-025

**DATE OF PLANS:** MAY 18, 2012

**PROJECT LOCATION:** 9191 PIONEER DRIVE, 92646 (NORTH SIDE OF PIONEER DRIVE, EAST OF MAGNOLIA AVENUE)

**PLAN REVIEWER:** ANDREW GONZALES, ASSOCIATE PLANNER

**TELEPHONE/E-MAIL:** (714) 374-1547/ AGONZALES@SURFCITY-HB.ORG

**PROJECT DESCRIPTION:** TO REVIEW DEVELOPMENT CONCEPT PLANS FOR THE SUBDIVISION AND DEVELOPMENT OF AN APPROXIMATELY 8.3-ACRE SITE (FORMERLY WARDLOW SCHOOL) FOR THE PURPOSES OF CREATING 49 NEW RESIDENTIAL LOTS WITH NEW SINGLE-FAMILY RESIDENCES. THE PROPOSED PROJECT WILL BE DESIGNED AS A PLANNED UNIT DEVELOPMENT UTILIZING VARYING LOT SIZES AT APPROXIMATELY 4,250 SQ. FT. (50 FT. X 85 FT.). ALL STREETS, LANDSCAPING, STORM DRAINS AND SEWERS FACILITIES WILL BE PRIVATELY MAINTAINED BY A HOMEOWNERS ASSOCIATION. THE STREETS WILL BE SIZED CONSISTENT WITH CITY PUBLIC STREET STANDARDS, INCLUDING PARKWAYS AND ON-STREET PUBLIC PARKING (36 FT. CURB-TO-CURB INTERIOR STREETS, 4 FT. SIDEWALK, AND 6 FT. PARKWAY ON EACH SIDE). THE PROJECT ALSO PROPOSES TO PROVIDE FOR ADDITIONAL PUBLIC PARKING FOR THE ADJACENT CITY PARK (APPROXIMATELY 80 SPACES ON 0.83 ACRES).

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The following is a list of code requirements deemed applicable to the proposed project based on plans stated above. The list is intended to assist the applicant by identifying requirements which must be satisfied during the various stages of project permitting and implementation. A list of conditions of approval adopted by the Planning Commission in conjunction with the requested entitlement(s), if any, will also be provided should final project approval be received. If you have any questions regarding these requirements, please contact the Plan Reviewer.

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**TENTATIVE TRACT MAP NO. 17239:**

1. Prior to submittal of the final tract to the Public Works Department for processing and approval, the following shall be required:
  - a. An Affordable Housing Agreement in accord with Section 230.26 of the Huntington Beach Zoning and Subdivision Ordinance (HBZSO). **(HBZSO Section 230.26)**
  - b. At least 90 days before City Council action on the final map, CC&Rs shall be submitted to the Planning and Building Department and approved by the City Attorney. The CC&Rs shall identify the common driveway access easements, and maintenance of all walls and common landscape areas by the Homeowners' Association. The CC&Rs must be in recordable form prior to recordation of the map. **(HBZSO Section 253.12.H)**
  - c. Final parcel tract map review fees shall be paid, pursuant to the fee schedule adopted by resolution of the City Council (*City of Huntington Beach Planning and Building Department Fee Schedule*). **(HBZSO Section 254.16)**
  - d. Park Land In-Lieu Fees shall be paid pursuant to the requirements of HBZSO Section 254.08 – *Parkland Dedications*. The fees shall be paid and calculated according to a schedule adopted by City Council resolution (*City of Huntington Beach Planning and Building Fee Schedule*). **(Ordinance No. 3562, Resolution Nos. 2002-56 and 2002-57)**
2. Prior to submittal for building permits, an application for address assignment, along with the corresponding application processing fee and applicable plans (as specified in the address assignment application form), shall be submitted to the Planning and Building Department. The application shall be submitted a minimum of 14 days prior to permit submittal. **(City Specification No. 409)**
3. Prior to issuance of a grading permit, the final map shall be recorded with the County of Orange. **(HBZSO Section 253.22)**
4. Prior to issuance of Building Permits, a Mitigation Monitoring Fee for a Mitigated Negative Declaration shall be paid to the Planning and Building Department pursuant to the fee schedule adopted by resolution of the City Council. **(City of Huntington Beach Planning and Building Department Fee Schedule)**
5. During demolition, grading, site development, and/or construction, all requirements of the Huntington Beach Zoning and Subdivision Ordinance and Municipal Code including the Noise Ordinance shall be adhered to. All activities including truck deliveries associated with construction, grading, remodeling, or repair shall be limited to Monday – Saturday, 7:00 AM to 8:00 PM. Such activities are prohibited Sundays and Federal holidays. **(HBMC 8.40.090)**
6. The Departments of Planning and Building, Public Works and Fire shall be responsible for ensuring compliance with all conditions of approval herein as noted after each condition. The Planning and Building Director and Public Works Director shall be notified in writing if any changes to the tract map are proposed during the plan check process. Permits shall not be issued until the Planning and Building Director and Public Works Director have reviewed and approved the proposed changes for conformance with the intent of the Planning Commission's action and the conditions herein. If the proposed changes are of a substantial nature, an amendment to the original entitlement reviewed by the Planning Commission may be required pursuant to the HBZSO. **(HBZSO Section 241.10)**

7. Tentative Tract No. 17239 shall not become effective until the ten (10) calendar day appeal period has elapsed from Planning Commission action. **(HBZSO Section 251.12)**
8. Tentative Tract No. 17239, General Plan Amendment No. 08-04, Zoning Map Amendment No. 08-04, and Conditional Use Permit No. 08-25 shall become null and void unless exercised within two (2) years of the date of final approval. An extension of time may be granted by the Director of Planning and Building pursuant to a written request submitted to the Planning and Building Department a minimum 60 days prior to the expiration date. **(HBZSO Section 251.14 and 251.16)**
9. The subdivision shall comply with all applicable requirements of the Municipal Code, Building Division, and Fire Department, as well as all applicable local, State and Federal Codes, Ordinances and standards, except as noted herein. **(City Charter, Article V)**
10. Construction shall be limited to Monday – Saturday 7:00 AM to 8:00 PM. Construction shall be prohibited Sundays and Federal holidays. **(HBMC 8.40.090)**
11. The applicant shall submit a check in the amount of \$50 for the posting of a Notice of Determination at the County of Orange Clerk's Office. The check shall be made out to the County of Orange and submitted to the Planning and Building Department within two (2) days of the Planning Commission's action. **(California Code Section 15094)**
12. All landscaping shall be maintained in a neat and clean manner, and in conformance with the HBZSO. Prior to removing or replacing any landscaped areas, check with the Departments of Planning and Building and Public Works for Code requirements. Substantial changes may require approval by the Planning Commission. **(HBZSO Section 232.04)**

**CONDITIONAL USE PERMIT NO. 08-25:**

1. The site plan, floor plans, and elevations approved by the Planning Commission shall be the conceptually approved design with the following modifications:
  - a. Parking lot striping shall comply with Chapter 231 of the Zoning and Subdivision Ordinance and Title 24, California Administrative Code. **(HBZSO Chapter 231)**
  - b. The site plan shall include all utility apparatus, such as but not limited to, backflow devices and Edison transformers. Utility meters shall be screened from view from public right-of-ways. Backflow prevention devices shall be not be located in the front yard setback and shall be screened from view. **(HBZSO Section 230.76)**
  - c. All exterior mechanical equipment shall be screened from view on all sides. Rooftop mechanical equipment shall be setback a minimum of 15 feet from the exterior edges of the building. Equipment to be screened includes, but is not limited to, heating, air conditioning, refrigeration equipment, plumbing lines, ductwork and transformers. Said screening shall be architecturally compatible with the building in terms of materials and colors. If screening is not designed specifically into the building, a rooftop mechanical equipment plan showing proposed screening must be submitted for review and approval with the application for building permit(s). **(HBZSO Section 230.76)**
  - d. The site plan and elevations shall include the location of all gas meters, water meters, electrical panels, air conditioning units, mailboxes (as approved by the United States Postal Service), and

similar items. If located on a building, they shall be architecturally integrated with the design of the building, non-obtrusive, not interfere with sidewalk areas and comply with required setbacks. **(HBZSO Section 230.76)**

- e. All parking area lighting shall be energy efficient and designed so as not to produce glare on adjacent residential properties. Security lighting shall be provided in areas accessible to the public during nighttime hours, and such lighting shall be on a time-clock or photo-sensor system. **(HBZSO 231.18.C)**
  - f. Project data information shall include the flood zone, base flood elevation and lowest building floor elevation(s) per NAVD88 datum. **(HBZSO Section 222.10.F)**
2. Prior to issuance of demolition permits, the following shall be completed:
- a. The applicant shall follow all procedural requirements and regulations of the South Coast Air Quality Management District (SCAQMD) and any other local, state, or federal law regarding the removal and disposal of any hazardous material including asbestos, lead, and PCB's. These requirements include but are not limited to: survey, identification of removal methods, containment measures, use and treatment of water, proper truck hauling, disposal procedures, and proper notification to any and all involved agencies. **(AQMD Rule 1403)**
  - b. Pursuant to the requirements of the South Coast Air Quality Management District, an asbestos survey shall be completed. **(AQMD Rule 1403)**
  - c. The applicant shall complete all Notification requirements of the South Coast Air Quality Management District. **(AQMD Rule 1403)**
  - d. The City of Huntington Beach shall receive written verification from the South Coast Air Quality Management District that the Notification procedures have been completed. **(AQMD Rule 1403)**
  - e. All asbestos shall be removed from all existing buildings prior to demolition of any portion of any onsite building. **(AQMD Rule 1403)**
  - f. Existing mature trees that are to be removed must be replaced at a 2 for 1 ratio with a 36" box tree or palm equivalent (13'-14' of trunk height for Queen Palms and 8'-9' of brown trunk). **(CEQA Categorical Exemption Section 15304)**
3. Prior to issuance of grading permits, the following shall be completed:
- a. Prior to submittal of a landscape plan, the applicant shall provide a Consulting Arborist report on all the existing trees. Said report shall quantify, identify, size and analyze the health of the existing trees. The report shall also recommend how the existing trees that are to remain (if any) shall be protected and how far construction/grading shall be kept from the trunk. **(Resolution No. 4545)**
  - b. A Landscape and Irrigation Plan, prepared by a Licensed Landscape Architect shall be submitted to the Planning and Building Department for review and approval. **(HBZSO Section 232.04)** *(For private properties)*

- c. A Landscape and Irrigation Plan, prepared by a Licensed Landscape Architect shall be submitted to the Public Works Department for review and approval. **(HBZSO Section 232.04)** *(For public properties)*
  - d. "Smart irrigation controllers" and/or other innovative means to reduce the quantity of runoff shall be installed. **(HBZSO Section 232.04.D)**
  - e. Standard landscape code requirements apply. **(HBZSO Chapter 232)**
  - f. All landscape planting, irrigation and maintenance shall comply with the City Arboricultural and Landscape Standards and Specifications. **(HBZSO Section 232.04.B)**
  - g. Landscaping plans should utilize native, drought-tolerant landscape materials where appropriate and feasible. **(HBZSO Section 232.06.A)**
  - h. A Consulting Arborist (approved by the City Landscape Architect) shall review the final landscape tree-planting plan and approve in writing the selection and locations proposed for new trees. Said Arborist signature shall be incorporated onto the Landscape Architect's plans and shall include the Arborist's name, certificate number and the Arborist's wet signature on the final plan. **(Resolution No. 4545)**
4. Prior to submittal for building permits, the following shall be completed:
- a. The Planning and Building Department shall review and approve the following:
    - 1) Special architectural treatment provided on all building walls.
    - 2) Revised site plan and elevations as modified pursuant to Condition No. 1.
    - 3) Proposed structures and/or building additions for architectural compatibility with existing structures. **(HBZSO Section 244.06)**
  - b. Residential type structures on the subject property, whether attached or detached, shall be constructed in compliance with the State acoustical standards. Evidence of compliance shall consist of submittal of an acoustical analysis report and plans, prepared under the supervision of a person experienced in the field of acoustical engineering, with the application for building permit(s). **(General Plan Policy N 1.2.1)**
5. Prior to issuance of building permits, the following shall be completed:
- a. An Affordable Housing Agreement in accord with Section 230.26 of the ZSO. **(HBZSO Section 230.26)**
  - b. A Mitigation Monitoring Fee for mitigated negative declarations shall be paid to the Planning and Building Department pursuant to the fee schedule adopted by resolution of the City Council. **(City of Huntington Beach Planning and Building Department Fee Schedule)**
6. During demolition, grading, site development, and/or construction, all Huntington Beach Zoning and Subdivision Ordinance and Municipal Code requirements including the Noise Ordinance. All activities including truck deliveries associated with construction, grading, remodeling, or repair shall be limited to Monday - Saturday 7:00 AM to 8:00 PM. Such activities are prohibited Sundays and Federal holidays. **(HBMC 8.40.090)**

7. The structure(s) cannot be occupied, the final building permit(s) cannot be approved, and utilities cannot be released for the first residential unit until the following has been completed:
  - a. Complete all improvements as shown on the approved grading, landscape and improvement plans. **(HBMC 17.05)**
  - b. All trees shall be maintained or planted in accordance to the requirements of Chapter 232. **(HBZSO Chapter 232)**
  - c. All landscape irrigation and planting installation shall be certified to be in conformance to the City approved landscape plans by the Landscape Architect of record in written form to the Planning and Building Department. **(HBZSO Section 232.04.D)**
  - d. An onsite 36" box tree or the palm equivalent shall be provided in the front yard, and a 24" box tree shall be provided in the parkway to meet the Huntington Beach; Zoning and Subdivision Ordinance, the Arboricultural and Landscape Standards and Specifications, and the Municipal Code. **(HBZSO Section 232.08, Resolution 4545, HBMC 13.50)**
  - e. The provisions of the Water Efficient Landscape Requirements shall be implemented. **(HBMC 14.52)**
8. The Development Services Departments (Planning and Building, Fire, and Public Works) shall be responsible for ensuring compliance with all applicable code requirements and conditions of approval. The Director of Planning and Building may approve minor amendments to plans and/or conditions of approval as appropriate based on changed circumstances, new information or other relevant factors. Any proposed plan/project revisions shall be called out on the plan sets submitted for building permits. Permits shall not be issued until the Development Services Departments have reviewed and approved the proposed changes for conformance with the intent of the Planning Commission's action. If the proposed changes are of a substantial nature, an amendment to the original entitlement reviewed by the Planning Commission may be required pursuant to the provisions of HBZSO Section 241.18. **(HBZSO Section 241.18)**
9. Conditional Use Permit No. 08-25 shall not become effective until General Plan Amendment No. 08-04 and Zoning Map Amendment No. 08-04 has been approved by the City Council and is in effect. **(HBZSO Section 247.16)**
10. Conditional Use Permit No. 08-25 shall become null and void unless exercised within one year of the date of final approval or such extension of time as may be granted by the Director pursuant to a written request submitted to the Planning and Building Department a minimum 30 days prior to the expiration date. **(HBZSO Section 241.16.A)**
11. Conditional Use Permit No. 08-25 shall not become effective until the appeal period following the approval of the entitlement has elapsed. **((HBZSO Section 241.14)**
12. The Planning Commission reserves the right to revoke Conditional Use Permit No. 08-25 pursuant to a public hearing for revocation, if any violation of the conditions of approval, Huntington Beach Zoning and Subdivision Ordinance or Municipal Code occurs. **(HBZSO Section 241.16.D)**
13. The project shall comply with all applicable requirements of the Municipal Code, Building Division, and Fire Department, as well as applicable local, State and Federal Fire Codes, Ordinances, and standards, except as noted herein. **(City Charter, Article V)**

14. Construction shall be limited to Monday – Saturday 7:00 AM to 8:00 PM. Construction shall be prohibited Sundays and Federal holidays. **(HBMC 8.40.090)**
15. The applicant shall submit a check in the amount of \$50.00 for the posting of the Notice of Determination at the County of Orange Clerk's Office. The check shall be made out to the County of Orange and submitted to the Planning and Building Department within two (2) days of the Planning Commission's approval of entitlements. **(California Code Section 15094)**
16. All landscaping shall be maintained in a neat and clean manner, and in conformance with the HBZSO. Prior to removing or replacing any landscaped areas, check with the Departments of Planning and Building and Public Works for Code requirements. Substantial changes may require approval by the Planning Commission. **(HBZSO Section 232.04)**

## **Attachment No. 2**

### **Summary of Mitigation Measures**

#### **Description of Impact**

Liquefaction and settlement

#### **Mitigation Measures**

**MM GEO-1:** The grading plan prepared for the proposed project shall contain the recommendations included in the reports listed below. These recommendations shall be implemented in the design of the project and include measures associated with site preparation, fill placement and compaction, seismic design features, excavation and shoring requirements, foundation design, concrete slabs and pavement, surface drainage, trench backfill, and geotechnical observation.

1. The August 23, 2007 Geotechnical Investigation and Liquefaction Evaluation Proposed Residential Development Wardlow School Site, prepared by Southern California Geotechnical.
2. The October 17, 2007, Additional Subsurface Exploration and Laboratory Testing Proposed Residential Development Wardlow School Site, prepared by Southern California Geotechnical.
3. February 17, 2012 Geotechnical Review and Commentary of Existing Reports and Plans for the Wardlow School Site Project.

Preclusion of direct access to subsurface areas

**MM GEO-2:** Prior to issuance of building permits for the project, in order to complete the soils information in areas of the site where existing structures and improvements have prevented easy access to deeper soil, additional subsurface borings shall be conducted. The project shall comply with any additional recommendations resulting from this additional subsurface investigation.

Runoff systems and stormwater drainage

**MM HYD-1:** Prior to the issuance of a grading permit, Hydrology and Hydraulic analysis shall be submitted for Public Works review and approval (10, 25, and 100-year storms shall be analyzed as applicable). The drainage improvements shall be designed and constructed as required by the Department of Public Works to mitigate impact of increased runoff due to development, or deficient, downstream systems. Design of all necessary drainage improvements shall provide mitigation for all rainfall event frequencies up to a 100-year frequency. Runoff shall be limited to existing 25-year flows, which must be established in the hydrology study. If the analysis shows that the City's current drainage system can not meet the volume needs of the project runoff, the developer shall be required to attenuate site runoff to an amount not to exceed the existing 25-year storm as determined by the hydrology study. As an option, the developer may choose to explore low-flow design alternatives, onsite attenuation or detention, or upgrade the City's storm drain system to accommodate the impacts of the new development, at no cost to the City.

Potential impact for bird species on site

**MM BIO-1:** Prior to ground disturbance, the applicant shall provide the City of Huntington Beach proof that a certified biologist has been retained to determine if nesting birds are present within the Project footprint or within a 250-foot buffer around the site. If nesting birds are present, construction activity shall be avoided in the area until nesting activity is complete (generally February 1 to August 31), as determined by the biologist. If ground or vegetation disturbance would occur between February and August, a preconstruction nesting bird survey shall be conducted seven days prior to

any ground or vegetation disturbance. Any active nests identified shall have a buffer area established within a 100-foot radius (200 foot for birds of prey) of the active nest. Disturbance shall not occur within the buffer area until the biologist determines that the young have fledged. Construction activity may occur within the buffer area at the discretion of the biological monitor.

Potential impact from agricultural chemicals.

**MM HAZ-1:** Prior to issuance of a grading permit, the project applicant shall have a soils survey conducted for the proposed project site to determine if any agricultural chemicals (herbicides, insecticides, pesticides and metals) remain at the project site from past agricultural use. The applicant shall implement the mitigation recommendations in the soils report.

Reduction of construction noise

**MM NOI-1:** All construction equipment shall use available noise suppression devices and properly maintained mufflers. All internal combustion engines used in the project area shall be equipped with the type of muffler recommended by the vehicle manufacturer. In addition, all equipment shall be maintained in good mechanical condition to minimize noise created by faulty or poorly maintained engine, drivetrain, and other components.

Reduction of construction noise

**MM NOI-2:** During construction, stationary construction equipment shall be placed such that emitted noise is directed away from sensitive noise receptors and as far as possible from the boundary of the residential use.

Building recordation

**MM CR-1:** Prior to demolition, the whole of the existing Wardlow School shall be fully recorded onto DPR523 form sets and the form set delivered to the South Coastal Central Information Center at CSU-Fullerton. Delivery of the data to the Center mitigates for potential direct and unavoidable impacts to the existing structure complex.

Potential for cultural resources impacts

**MM CR-2:** The project applicant shall ensure that during ground-disturbing activities an archaeological mitigation monitoring program shall be implemented within the project boundaries. Full-time monitoring shall continue until the project archaeologist determines that the overall sensitivity of the project area has been reduced from high to low, as a result of mitigation monitoring. Should the monitor determine that there are no cultural resources within the impacted areas, or should the sensitivity be reduced to low during monitoring, all monitoring shall cease.

Specifically, prior to issuance of the first rough grading permit, and for any subsequent permit involving excavation to increased depth, the landowner or subsequent project applicant shall provide evidence to the City of Huntington Beach that a qualified archaeologist has been retained by the landowner or subsequent project applicant, and that the consultant(s) will be present during all grading and other significant ground disturbing activities.

Potential for  
Paleontological  
resources impacts

**MM PR-1:** The project applicant shall ensure that during excavation a qualified paleontologic monitor is present to observe excavation in areas identified as likely to contain paleontologic resources. Based upon this review, areas of concern include undisturbed older Quaternary deposits. Paleontologic monitors should be equipped to salvage fossils as they are unearthed, to avoid construction delays, and to remove samples of sediments likely to contain the remains of small fossil invertebrates and vertebrates. Monitors must be empowered to temporarily halt or divert equipment to allow removal of abundant or large specimens. Monitoring may be reduced or eliminated if the potentially fossiliferous units described herein are determined upon exposure and examination by qualified paleontologic personnel to have low potential to contain fossil resources, or if the parameters of the proposed project will not impact potentially fossiliferous units. This decision is at the discretion of the qualified paleontologic monitor. If the monitoring program results in positive findings, then refer to PR-2 to PR-4.

Potential for  
Paleontological  
resources impacts

**MM PR-2:** Preparation of recovered specimens to a point of identification and permanent preservation, including washing of sediments to recover small invertebrates and vertebrates. Preparation and stabilization of all recovered fossils are essential in order to fully mitigate adverse impacts to the resources.

Potential for  
Paleontological  
resources impacts

**MM PR-3:** Identification and curation of specimens into an established, accredited museum repository with permanent retrievable paleontologic storage. These procedures are also essential steps in effective paleontologic mitigation and CEQA compliance. The paleontologist must have a written repository agreement in hand prior to the initiation of mitigation activities. Mitigation of adverse impacts to significant paleontologic resources is not complete until such curation into an established museum repository has been fully completed and documented.

Potential for  
Paleontological  
resources impacts

**MM PR-4:** Preparation of a report of findings with an appended itemized inventory of specimens. The report and inventory, when submitted to the appropriate Lead Agency along with confirmation of the curation of recovered specimens into an established, accredited museum repository, will signify completion of the program to mitigate impacts to paleontologic resources.

**Attachment No. 3**  
**Traffic Impact Analysis**

**TRAFFIC IMPACT ANALYSIS**  
**FOR THE PROPOSED**  
**RESIDENTIAL DEVELOPMENT AT THE WARDLOW SCHOOL SITE**  
**9191 PIONEER DRIVE EAST OF MAGNOLIA STREET**  
**TRACT NO. 17239**  
**HUNTINGTON BEACH**

**Prepared for**  
**MICHAEL BRANDMAN ASSOCIATES**  
**&**  
**CITY OF HUNTINGTON BEACH**

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**MAY 2012**

ATTACHMENT NO. 3.1

## TABLE OF CONTENTS

	<u>Page</u>
I. Introduction and Project Description	1
II. Existing Traffic Conditions	2
Street Network	2
Existing Baseline Traffic Volumes	2
Intersection Levels of Service	3
III. Future Baseline Traffic Conditions	5
IV. Traffic Impact Analysis	8
Project Generated Traffic	8
Significance Criteria	9
Intersection Impact Analysis	9
Signal Warrant Analysis	11
Year 2030 Analysis	11
Parking Analysis	12
Recommendations	13
V. Summary of Impacts and Conclusions	14
APPENDIX	
A. Site Plan	
B. Traffic Volume Figures	
C. Level of Service Calculation Sheets	

## LIST OF TABLES

	<u>Page</u>
1. Relationship between ICU Values, Delays, and Levels of Service	3
2. Existing Intersection Levels of Service	4
3. Development Projects for Cumulative Analysis	5
4. Traffic Generated by Other Proposed Development Projects	6
5. Year 2014 Baseline Intersection Levels of Service Without Project	7
6. Project Generated Traffic	8
7. Significance Criteria for Traffic Impacts	9
8. Project Impact on Intersection Levels of Service – AM Peak Hour	10
9. Project Impact on Intersection Levels of Service – PM Peak Hour	11
10. Project Impact on Year 2030 Intersection Levels of Service	12

**LIST OF FIGURES  
(IN APPENDIX B)**

1. Existing Roadway Characteristics & Lane Configuration
2. Existing Traffic Volumes – AM Peak Hour
3. Existing Traffic Volumes – PM Peak Hour
4. Cumulative Traffic from Proposed Development Projects – AM Peak Hour
5. Cumulative Traffic from Proposed Development Projects – PM Peak Hour
6. 2014 Traffic Volumes Without Project – AM Peak Hour
7. 2014 Traffic Volumes Without Project – PM Peak Hour
8. Project Generated Traffic – AM Peak Hour
9. Project Generated Traffic – PM Peak Hour
10. 2014 Traffic Volumes With Project – AM Peak Hour
11. 2014 Traffic Volumes With Project – PM Peak Hour

**I.**  
**INTRODUCTION AND PROJECT DESCRIPTION**

This report summarizes the results of a traffic impact analysis that was conducted for a 49-unit single-family residential development proposed by TRI Pointe Homes at 9191 Pioneer Drive in Huntington Beach. The project site, which is located on the north side of Pioneer Drive east of Magnolia Street, is currently occupied by a closed school site (Wardlow School). Wardlow Park, an existing City-owned park with sports fields, is located immediately west of the project site between the project site and Magnolia Street.

The methodology for the traffic study, in general, was to 1) establish the existing traffic conditions, 2) develop the projected future baseline conditions without the project by considering the cumulative effects of regional growth and traffic generated by other development projects in the study vicinity, 3) estimate the levels of traffic that would be generated by the proposed project, 4) conduct a comparative analysis of traffic conditions with and without the project, and 5) identify potential mitigation measures/roadway improvements. The analysis is based on the weekday morning and afternoon peak hour traffic volumes on the streets and intersections in the project vicinity. The levels of service at the following nine intersections were analyzed.

- Magnolia Street at Garfield Avenue (signalized)
- Magnolia Street at Yorktown Avenue (signalized)
- Magnolia Street at Adams Avenue (signalized)
- Newland Street at Yorktown Avenue (signalized)
- Newland Street at Adams Avenue (signalized)
- Bushard Street at Yorktown Avenue (signalized)
- Bushard Street at Adams Avenue (signalized)
- Magnolia Street at Pioneer Drive (stop sign on Pioneer Drive)
- Adams Avenue at Shorewood Circle (stop signs on Shorewood Circle)

A site plan for the proposed residential development is provided in Appendix A. As shown, vehicular access would be provided by a new north-south street that would intersect with Pioneer Drive west of Lotus Lane. This internal street would be a loop street that runs in a "P"-shaped configuration.

## II. EXISTING TRAFFIC CONDITIONS

The street network in the project vicinity, the existing traffic volumes, and the levels of service at the affected study area intersections are described below.

### **Street Network**

The streets that provide access to the project vicinity include Pioneer Drive, Lotus Lane, Magnolia Street, Yorktown Avenue, Adams Avenue, Newland Street, Bushard Street, and Garfield Avenue. Pioneer Drive is a two lane east-west street that abuts the south side of the project site. It intersects with Magnolia Street approximately 300 feet west of the project site at the southwest corner of Wardlow Park. Lotus Lane is a two lane north-south street that intersects with Pioneer Drive at the southeast corner of the project site. It provides a link between the project site and Adams Avenue.

Magnolia Street is a four lane north-south street that abuts the west side of Wardlow Park. Yorktown Avenue is a four lane east-west street located approximately one-quarter mile north of the project site. Adams Avenue is a six lane east-west street located approximately one-quarter mile south of the project site. Newland Street is a four lane north-south street located approximately one-half mile west of the project site. Bushard Street is a four lane north-south street located approximately one-quarter mile east of the project site. Garfield Avenue is a four lane east-west street located approximately three-quarters mile north of the project site.

Nine intersections in the project vicinity have been analyzed for this traffic study, as listed in the Introduction. Eight of these intersections are within the jurisdiction of the City of Huntington Beach, while the intersection of Magnolia Street and Garfield Avenue is on the boundary of Huntington Beach and Fountain Valley. A sketch that shows the existing roadway characteristics and lane configuration for the study area streets and intersections is included as Figure 1 in Appendix B.

### **Existing Baseline Traffic Volumes**

Manual traffic counts were taken at the nine study area intersections in February, 2009, during the weekday morning and afternoon peak periods on days when the local schools were in session. As these traffic counts are three years old, sample traffic counts were taken at several locations in January, 2012, to determine if conditions had changed since 2009. As the 2012 counts were slightly lower than the 2009 counts, it was determined that it would be acceptable to use the 2009 traffic counts to represent existing conditions. The results of the traffic count program for the nine intersections are provided in Appendix B on Figures 2 and 3 for the morning and afternoon peak hours, respectively. The exhibits show the existing peak hour traffic volumes and turning movements at each intersection. Although the weekday traffic counts were taken from 7:00 to 9:00 a.m. and from 4:00 to 6:30 p.m., the traffic volumes shown on the exhibits represent the peak one-hour interval of traffic flow at each intersection, which generally occurred from 7:00 to 8:00 a.m. and from 5:00 to 6:00 p.m.

Traffic counts were also taken on Thursday, May 14 and Saturday, May 16, 2009, at the intersection of Magnolia Street and Pioneer Drive during times when baseball games were in progress at Wardlow Park.

**Intersection Levels of Service**

To quantify the existing baseline traffic conditions, the nine study area intersections were analyzed to determine their operating conditions during the weekday morning and afternoon peak hours. The seven signalized intersections were analyzed by calculating the intersection capacity utilization (ICU) values and corresponding levels of service (LOS), which are based on the peak hour traffic volumes, the turning movement counts, and the existing number of lanes at each intersection. The ICU values are essentially a comparison of the volume of traffic passing through the intersection to the overall capacity of the intersection. The ICU calculations are based on an assumed capacity of 1,700 vehicles per lane per hour of green time and a clearance interval of 0.05, as specified by staff at the City of Huntington Beach.

The levels of service for the two unsignalized intersections were determined by using the Highway Capacity Software's two-way stop methodology, which calculates the average approach delay for vehicles waiting at the stop signs and relates the delay value to a level of service.

Level of service is a qualitative indicator of an intersection's operating conditions that is used to represent various degrees of congestion and delay. It is measured from LOS A (excellent conditions) to LOS F (extreme congestion), with LOS A through D considered to be acceptable per the City of Huntington Beach General Plan. The relationship between ICU values and levels of service for the signalized intersections and the relationship between delay values and levels of service for the intersections with stop signs are shown in Table 1.

**TABLE 1  
RELATIONSHIP BETWEEN ICU VALUES, DELAYS, AND LEVELS OF SERVICE**

<b>Level of Service</b>	<b>ICU Value At Signalized Intersections</b>	<b>Delay Value (seconds per vehicle) At Stop Signs</b>
A	0.000 to 0.600	0.0 to 10.0
B	> 0.600 to 0.700	> 10.0 to 15.0
C	> 0.700 to 0.800	> 15.0 to 25.0
D	> 0.800 to 0.900	> 25.0 to 35.0
E	> 0.900 to 1.000	> 35.0 to 50.0
F	> 1.000	> 50.0

The results of the level of service analysis are shown in Table 2 for existing traffic conditions. As shown, all nine of the study area intersections currently operate at acceptable levels of service (LOS A, B, C, or D) during the weekday morning and afternoon peak hours and the Saturday afternoon peak hour. The level of service calculation sheets are included in Appendix C.

**TABLE 2  
EXISTING INTERSECTION LEVELS OF SERVICE**

Intersection	Level of Service	
	AM Peak Hour	PM Peak Hour
SIGNALIZED INTERSECTIONS (ICU value & LOS)		
Magnolia Street at Garfield Avenue	0.593 – A	0.552 – A
Magnolia Street at Yorktown Avenue	0.523 – A	0.556 – A
Magnolia Street at Adams Avenue	0.618 – B	0.749 – C
Newland Street at Yorktown Avenue	0.494 – A	0.555 – A
Newland Street at Adams Avenue	0.471 – A	0.607 – B
Bushard Street at Yorktown Avenue	0.418 – A	0.433 – A
Bushard Street at Adams Avenue	0.593 – A	0.673 – B
UNSIGNALIZED INTERSECTIONS (approach delay in seconds & LOS)		
Magnolia Street at Pioneer Drive Without Baseball Games in Progress	14.8 – B	28.7 – D
With Baseball Games (Weekday)	N/A	26.5 – D
With Baseball Games (Saturday)	N/A	26.7 – D
Adams Avenue at Shorewood Circle	29.1 – D	18.5 – C

**III.  
FUTURE BASELINE TRAFFIC CONDITIONS**

The future baseline traffic conditions without the project for the target year of completion (2014) were estimated by considering the effects of general ambient regional growth and the cumulative increase in traffic volumes that would be generated by other development projects proposed in the vicinity of the project site. The first step in estimating the future baseline traffic volumes was to expand the existing traffic volumes by a factor of two percent, which represents a growth rate of one percent per year for two years. This growth factor accounts for the traffic increases associated with general regional growth and development projects not in the immediate vicinity of the project site.

The second step in estimating the future baseline traffic volumes was to estimate the increased levels of traffic that would occur at the study area streets and intersections as a result of the traffic that would be generated by other proposed development projects; i.e., those that are within a one-mile radius of the project site. The list of development projects was obtained from the Huntington Beach Planning Department (“Planning Applications – 2012,” updated February 2012). The volumes of traffic that would be generated by these projects were estimated for the morning and afternoon peak hours.

The development projects that were included in the cumulative traffic analysis are presented in Table 3. As shown, there are three other development projects proposed in the vicinity of the project site.

**TABLE 3  
DEVELOPMENT PROJECTS FOR CUMULATIVE ANALYSIS**

Project/Land Use	Location	Size
1. Apartments	19891 Beach Blvd. (west side south of Utica Avenue)	174 units
2. Lamb School Site – Single Family Residential Development	10251 Yorktown Avenue	81 units
3. Hoag Medical Office Building Expansion	19582 Beach Blvd.	52,177 sq. ft.

The estimated volumes of traffic that would be generated by the three proposed development projects are shown in Table 4. The table shows the trip generation rates for each land use type and the volumes of traffic that each project would generate during the peak hours on a typical weekday. The table indicates that the projects, in total, would generate an estimated 270 vehicle trips during the morning peak hour (128 inbound and 142 outbound), 371 trips during the afternoon peak hour (171 inbound and 200 outbound), and 4,020 vehicle trips per day. The trip generation rates shown in Table 4 are from the Institute of Transportation Engineers *Trip Generation* manual (8<sup>th</sup> Edition, 2008), except that the daily rate for the single family residential use is 12.0 trips per unit as directed by City staff instead of the manual’s rate of 9.57 trips per unit.

**TABLE 4  
TRAFFIC GENERATED BY OTHER PROPOSED DEVELOPMENT PROJECTS**

Project/ Land Use	Daily Traffic	AM Peak Hour			PM Peak Hour		
		Total	In	Out	Total	In	Out
TRIP GENERATION RATES							
Apartments (per unit)	6.65	0.51	20%	80%	0.62	65%	35%
Single Family Residential (per unit)	12.0	0.75	25%	75%	1.01	63%	37%
Medical Offices (per 1,000 sq. ft.)	36.13	2.30	79%	21%	3.46	27%	73%
GENERATED TRAFFIC							
1. Apartments (174 units)	1,160	89	18	71	108	70	38
2. Lamb Residential (81 units)	970	61	15	46	82	52	30
3. Hoag Med Offices (52,177 sq. ft.)	1,890	120	95	25	181	49	132
TOTAL	4,020	270	128	142	371	171	200

The traffic from the other proposed development projects was geographically distributed onto the street network to quantify the cumulative impacts at each study area intersection. Figures 4 and 5 in Appendix B show the estimated cumulative increases in traffic that would occur at each intersection as a result of the related projects for the morning and afternoon peak hours, respectively.

The projected future baseline traffic volumes without the proposed project, which accounts for general area-wide growth and the cumulative volumes of traffic that would be generated by the other proposed development projects, are shown on Figures 6 and 7 in Appendix B for the morning and afternoon peak hours, respectively.

Based on the peak hour traffic volumes, the turning movement counts, and the lane configuration at each intersection, the future (year 2014) baseline ICU values (for the signalized intersections), delay values (for the unsignalized intersections), and levels of service were calculated for the nine study area intersections for each peak period, as summarized in Table 5. As shown, all nine of the study area intersections are projected to operate at acceptable levels of service (LOS A, B, C, or D) during the weekday morning and afternoon peak hours and the Saturday afternoon peak hour for the year 2014 scenario without the proposed project.

**TABLE 5**  
**YEAR 2014 BASELINE INTERSECTION LEVELS OF SERVICE**  
**WITHOUT PROJECT**

Intersection	Level of Service	
	AM Peak Hour	PM Peak Hour
SIGNALIZED INTERSECTIONS (ICU value & LOS)		
Magnolia Street at Garfield Avenue	0.609 – B	0.568 – A
Magnolia Street at Yorktown Avenue	0.542 – A	0.576 – A
Magnolia Street at Adams Avenue	0.633 – B	0.767 – C
Newland Street at Yorktown Avenue	0.515 – A	0.581 – A
Newland Street at Adams Avenue	0.483 – A	0.624 – B
Bushard Street at Yorktown Avenue	0.429 – A	0.445 – A
Bushard Street at Adams Avenue	0.607 – B	0.688 – B
UNSIGNALIZED INTERSECTIONS (approach delay in seconds & LOS)		
Magnolia Street at Pioneer Drive Without Baseball Games in Progress	15.0 – C	30.1 – D
With Baseball Game (Weekday)	N/A	28.3 – D
With Baseball Game (Saturday)	N/A	28.5 – D
Adams Avenue at Shorewood Circle	31.6 – D	19.1 – C

**IV.  
TRAFFIC IMPACT ANALYSIS**

The following sections summarize the analysis of the project's impacts on study area traffic conditions. First is a discussion of project generated traffic volumes. This is followed by an analysis of the impacts of the proposed project on traffic volumes and intersection levels of service.

**Project Generated Traffic**

The volumes of traffic that would be generated by the proposed project were determined in order to estimate the impacts of the project on the study area streets and intersections. Table 6 shows the estimated volume of project generated traffic for an average weekday and for the morning and afternoon peak hours for the proposed 49-unit residential development. The trip generation rates (vehicle trips per dwelling unit) represent values from the Institute of Transportation Engineers *Trip Generation* manual (8th Edition, 2008) for the single-family detached housing residential land use category, except that the daily rate for the single family residential use is 12.0 trips per unit as directed by City staff instead of the manual's rate of 9.57 trips per unit. For purposes of comparison, Table 6 also shows the estimated volumes of traffic that were generated by the elementary school that formerly occupied the project site.

**TABLE 6  
PROJECT GENERATED TRAFFIC**

Land Use	AM Peak Hour			PM Peak Hour			Daily Traffic
	Total	In	Out	Total	In	Out	
<b>TRIP GENERATION RATES</b>							
Single Family Residential (trips per dwelling unit)	0.75	25%	75%	1.01	63%	37%	12.0
Elementary School (trips per student)	0.45	55%	45%	0.28	45%	55%	1.29
<b>PROJECT GENERATED TRAFFIC</b>							
Wardlow Residential Project (49 units)	37	9	28	49	31	18	590
Former Wardlow School (650 students)	293	161	132	182	82	100	840

Table 6 indicates that the proposed residential development would generate 37 vehicle trips during the morning peak hour (9 inbound and 28 outbound), 49 trips during the afternoon peak hour (31 inbound and 18 outbound), and a total of 590 vehicle trips per day. As a comparison, the former elementary school generated 293 trips during the morning peak hour, 182 trips during the afternoon peak hour, and 840 trips per day. The proposed residential development would, therefore, generate less traffic than the former elementary school use.

To quantify the increases in traffic that would occur at each intersection as a result of the proposed project, the project generated traffic was geographically distributed onto the street

network using the directional percentages shown on Figure 8 in Appendix B. This distribution assumption is based on the layout of the existing street network and the existing travel patterns observed during the peak periods.

The volumes of project traffic on each access street and at each study area intersection were determined by using the generated traffic volumes shown in Table 6 and the geographical distribution assumptions shown on Figure 8. The volumes of traffic that would be added to each intersection as a result of the new residential development are shown on Figures 8 and 9 in Appendix B for the morning and afternoon peak hours, respectively.

The projected traffic volumes for the year 2014 with the project are shown on Figures 10 and 11 for the morning and afternoon peak hours. These traffic volumes represent the 2014 baseline traffic volumes plus the traffic that would be generated by the proposed project.

### Significance Criteria

According to the City of Huntington Beach General Plan, a transportation impact at a signalized intersection shall be deemed significant in accordance with the criteria outlined in Table 7. Although the City does not have adopted significance criteria for unsignalized intersections, it has been assumed that an unsignalized intersection would be significantly impacted if the project would change the level of service from an acceptable LOS A through D to an unacceptable LOS E or F. The intersection would not be significantly impacted if the intersection's level of service would remain at LOS D or better.

**TABLE 7  
SIGNIFICANCE CRITERIA FOR TRAFFIC IMPACTS**

Level of Service	Final ICU Value	Project-Related Increase in ICU
E, F	> 0.900	Equal to or greater than 0.010

### Intersection Impact Analysis

An analysis of traffic impacts was conducted by quantifying the before-and-after traffic volumes, then determining the ICU values, average delay values, and levels of service at the study area intersections for the "without project" and "with project" scenarios. The before-and-after ICU values (for the signalized intersections), delay values (for the intersections with stop signs), and levels of service at each of the study area intersections are summarized in Table 8 for the morning peak hour and Table 9 for the afternoon peak hour. The tables show the existing traffic conditions, the existing plus project conditions, the future baseline traffic conditions without the project for the year 2014, the 2014 traffic conditions with the addition of the project traffic, and the change in ICU values and average delay values associated with the project. The last columns of Tables 8 and 9 indicate if the intersection would be significantly impacted by the proposed project. As shown, the proposed residential project would not have a significant impact at any of the study area intersections during the morning or afternoon peak hours.

**TABLE 8  
PROJECT IMPACT ON INTERSECTION LEVELS OF SERVICE – AM PEAK HOUR**

Intersection	Level of Service					
	Existing Conditions	Existing Plus Project	2014 Without Project	2014 With Project	Project Impact	Significant Impact
<b>SIGNALIZED INTERSECTIONS</b> (ICU value & LOS)						
Magnolia/Garfield	0.593 – A	0.596 – A	0.609 – B	0.612 – B	0.003	No
Magnolia/Yorktown	0.523 – A	0.527 – A	0.542 – A	0.546 – A	0.004	No
Magnolia/Adams	0.618 – B	0.620 – B	0.633 – B	0.635 – B	0.002	No
Newland/Yorktown	0.494 – A	0.496 – A	0.515 – A	0.517 – A	0.002	No
Newland/Adams	0.471 – A	0.471 – A	0.483 – A	0.483 – A	0.000	No
Bushard/Yorktown	0.418 – A	0.419 – A	0.429 – A	0.430 – A	0.001	No
Bushard/Adams	0.593 – A	0.594 – A	0.607 – B	0.607 – B	0.000	No
<b>UNSIGNALIZED INTERSECTIONS</b> (average vehicle delay in seconds & LOS)						
Magnolia/Pioneer	14.8 – B	16.7 – C	15.0 – C	17.1 – C	2.1	No
Adams/Shorewood	29.1 – D	29.7 – D	31.6 – D	31.9 – D	0.3	No

Table 8 indicates that the intersection of Magnolia Street at Garfield Avenue, for example, would operate at an ICU value of 0.593 and LOS A for existing conditions during the AM peak hour and at an ICU value of 0.596 and LOS A for the existing plus project scenario. The table indicates that this intersection would operate at an ICU value of 0.609 and LOS B for the year 2014 without project scenario and at an ICU value of 0.612 and LOS B in 2014 with the project, which represents an increase in the ICU value of 0.003. The last column indicates that the intersection would not be significantly impacted. Tables 8 and 9 indicate that none of the study area intersections would be significantly impacted by the project and that all of the intersections would continue to operate at acceptable conditions (LOS A through D) during the AM and PM peak hours for the existing conditions and year 2014 analysis scenarios.

It should be noted that the traffic impact analysis is based on the traffic that would be generated by the 49 proposed residential units. Although Wardlow Park is located adjacent to the project site, the park would not result in an increase in traffic volumes because it is an existing recreational facility that would continue operating under current conditions regardless of the status of the proposed residential development project. As shown on Table 9, the intersection of Magnolia Street and Pioneer Drive was evaluated for typical conditions (without a baseball game) and for times when baseball games were occurring at Wardlow Park. Weekday afternoon and Saturday afternoon time periods were addressed in the analysis.

**TABLE 9  
PROJECT IMPACT ON INTERSECTION LEVELS OF SERVICE – PM PEAK HOUR**

Intersection	Level of Service					
	Existing Conditions	Existing Plus Project	2014 Without Project	2014 With Project	Project Impact	Significant Impact
<b>SIGNALIZED INTERSECTIONS (ICU value &amp; LOS)</b>						
Magnolia/Garfield	0.552 – A	0.556 – A	0.568 – A	0.570 – A	0.002	No
Magnolia/Yorktown	0.556 – A	0.566 – A	0.576 – A	0.585 – A	0.009	No
Magnolia/Adams	0.749 – C	0.754 – C	0.767 – C	0.772 – C	0.005	No
Newland/Yorktown	0.555 – A	0.556 – A	0.581 – A	0.582 – A	0.001	No
Newland/Adams	0.607 – B	0.609 – B	0.624 – B	0.624 – B	0.000	No
Bushard/Yorktown	0.433 – A	0.435 – A	0.445 – A	0.446 – A	0.001	No
Bushard/Adams	0.673 – B	0.673 – B	0.688 – B	0.689 – B	0.001	No
<b>UNSIGNALIZED INTERSECTIONS (average vehicle delay in seconds &amp; LOS)</b>						
Magnolia/Pioneer Without Baseball	28.7 – D	32.7 – D	30.1 – D	34.9 – D	4.8	No
W Baseball (Weekday)	26.5 – D	31.8 – D	28.3 – D	34.3 – D	6.0	No
W Baseball (Saturday)	26.7 – D	32.6 – D	28.5 – D	34.9 – D	6.4	No
Adams/Shorewood	18.5 – C	18.6 – C	19.1 – C	19.1 – C	0.0	No

**Signal Warrant Analysis**

A signal warrant analysis was conducted to determine if a traffic signal would be justified at the intersection of Magnolia Street and Pioneer Drive. The signal warrant worksheets for the AM and PM peak hours are provided at the end of Appendix C for the year 2014 scenario with the proposed project. As the plot of the major street (Magnolia Street) and minor street (Pioneer Drive) traffic volumes falls below the curves on the charts, a traffic signal would not be warranted at this intersection. The worksheets are from the California Manual on Uniform Traffic Control Devices (MUTCD, January 13, 2012).

**Year 2030 Analysis**

An analysis has been conducted to determine the impacts of the project on the intersection levels of service for the long-range future (year 2030) scenario. The projected baseline traffic volumes, lane configuration, ICU values, and levels of service for the year 2030, as provided by City staff, are represented in the level of service calculation sheets from the traffic analysis for the Beach/Edinger Specific Plan (Appendix C). The project generated traffic was added to the projected baseline traffic volumes and the levels of service were re-calculated to quantify the project's impacts at each intersection. The results of the 2030 analysis are shown in Table 10. As shown, the project would not result in a significant impact at any of the study area intersections for the year 2030 analysis scenario.

**TABLE 10  
PROJECT IMPACT ON YEAR 2030 INTERSECTION LEVELS OF SERVICE**

Intersection	Year 2030 ICU Values & Levels of Service			
	Without Project	With Project	Project Impact	Significant Impact
AM PEAK HOUR				
Magnolia/Garfield	0.73 – C	0.73 – C	0.00	No
Magnolia/Yorktown	0.65 – B	0.65 – B	0.00	No
Magnolia/Adams	0.88 – D	0.88 – D	0.00	No
Newland/Yorktown	0.70 – C	0.70 – C	0.00	No
Newland/Adams	0.68 – B	0.68 – B	0.00	No
Bushard/Yorktown	0.64 – B	0.64 – B	0.00	No
Bushard/Adams	0.77 – C	0.77 – C	0.00	No
PM PEAK HOUR				
Magnolia/Garfield	0.79 – C	0.79 – C	0.00	No
Magnolia/Yorktown	0.65 – B	0.65 – B	0.00	No
Magnolia/Adams	0.81 – D	0.81 – D	0.00	No
Newland/Yorktown	0.86 – D	0.86 – D	0.00	No
Newland/Adams	0.73 – C	0.73 – C	0.00	No
Bushard/Yorktown	0.64 – B	0.64 – B	0.00	No
Bushard/Adams	0.82 – D	0.82 – D	0.00	No

**Parking Analysis**

The Wardlow School site currently has a total of 70 parking spaces, which is comprised of 42 spaces in the lot adjacent to the Wardlow Park ball fields and 28 spaces in the lot in front of the school buildings. These 70 parking spaces would be displaced as a result of the proposed development. To compensate for the loss of existing parking spaces, the project would provide 80 spaces in a parking lot at the southwest corner of the project site. This parking lot would be available to patrons of Wardlow Park. In addition, the park users could continue to park in the on-street parking spaces adjacent to the park on Pioneer Drive and Magnolia Street. As the project would result in an increase in the number of parking spaces available to park patrons, it would not have an adverse parking impact.

Observations during times of peak utilization at the park (i.e., when multiple little league baseball games were in session) indicated that up to 98 vehicles were parked in the parking lots and 94 vehicles were parked along the streets, which included Pioneer Drive, Gettysburg Drive, Magnolia Street, and Madeline Drive, for a total parking demand of 192 vehicles. Although the on-site parking lots have 70 spaces, 98 vehicles were parked because motorists were using grass areas and aisles as parking spaces. As the overall parking demand of 192 vehicles exceeds the existing supply of 70 on-site parking spaces by 122 vehicles, events and activities at the park result in substantial parking intrusion on the residential streets in the vicinity of the park.

While the proposed residential development would displace the existing on-site parking spaces at the school site, the project's parking impacts would not be significant because the 70 spaces that would be displaced by the project would be replaced with 80 new parking spaces. The parking demands that would be generated by the residential development would be accommodated within the project boundaries in the private garages and driveways and along the internal streets. The project would not, therefore, result in a significant parking impact.

### **Recommendations**

As the proposed project would not result in a significant traffic impact at any of the study area intersections, no capacity-related mitigation measures would be necessary. As the proposed project would result in an increase in the number of parking spaces available for the adjacent park and would accommodate the project's parking demands on site, no parking-related mitigation measures would be necessary.

V.  
**SUMMARY OF IMPACTS AND CONCLUSIONS**

The key findings of the traffic impact analysis are presented below.

- The proposed 49-unit residential development would generate 37 vehicle trips during the morning peak hour (9 inbound and 28 outbound), 49 trips during the afternoon peak hour (31 inbound and 18 outbound), and a total of 590 vehicle trips per day.
- An analysis of nine intersections in the vicinity of the proposed project indicates that the additional traffic generated by the development would not result in a significant impact at any of the intersections according to the City of Huntington Beach's significance criteria.
- As there would be no significant traffic impacts, no capacity-related mitigation measures would be necessary.
- Although the project would displace 70 existing parking spaces at the school site, a new parking lot with 80 parking spaces would be provided at the southwest corner of the project site. The project would not, therefore, result in a significant parking impact relative to parking for the park.
- The parking demands generated by the proposed project would be accommodated on site in garages, driveways, and on the internal streets.
- As there would be no significant parking impacts, no parking-related mitigation measures would be necessary.

**APPENDIX A**  
**SITE PLAN**

**Site Summary**

- Total Homes : 49
- Gross Site Area : ±8.35 Acres
- Future Park Dedication : ±0.83 Acres
- Net Site Area : ±7.52 Acres
- Density : ±6.5 Homes/Acre Minimum
- Minimum Lot Size : 50'x85' (4,250 s.f.)

**Owner/Developer**



**Pointe**  
HOMES, LLC  
19520 Jamboree, Suite 200  
Irvine, CA 92612

**Architect**  
Bassenian | Lago  
ARCHITECTS - PLANNERS - INTERIORS  
2031 Orchard Drive, Suite 100  
Newport Beach, CA 92660

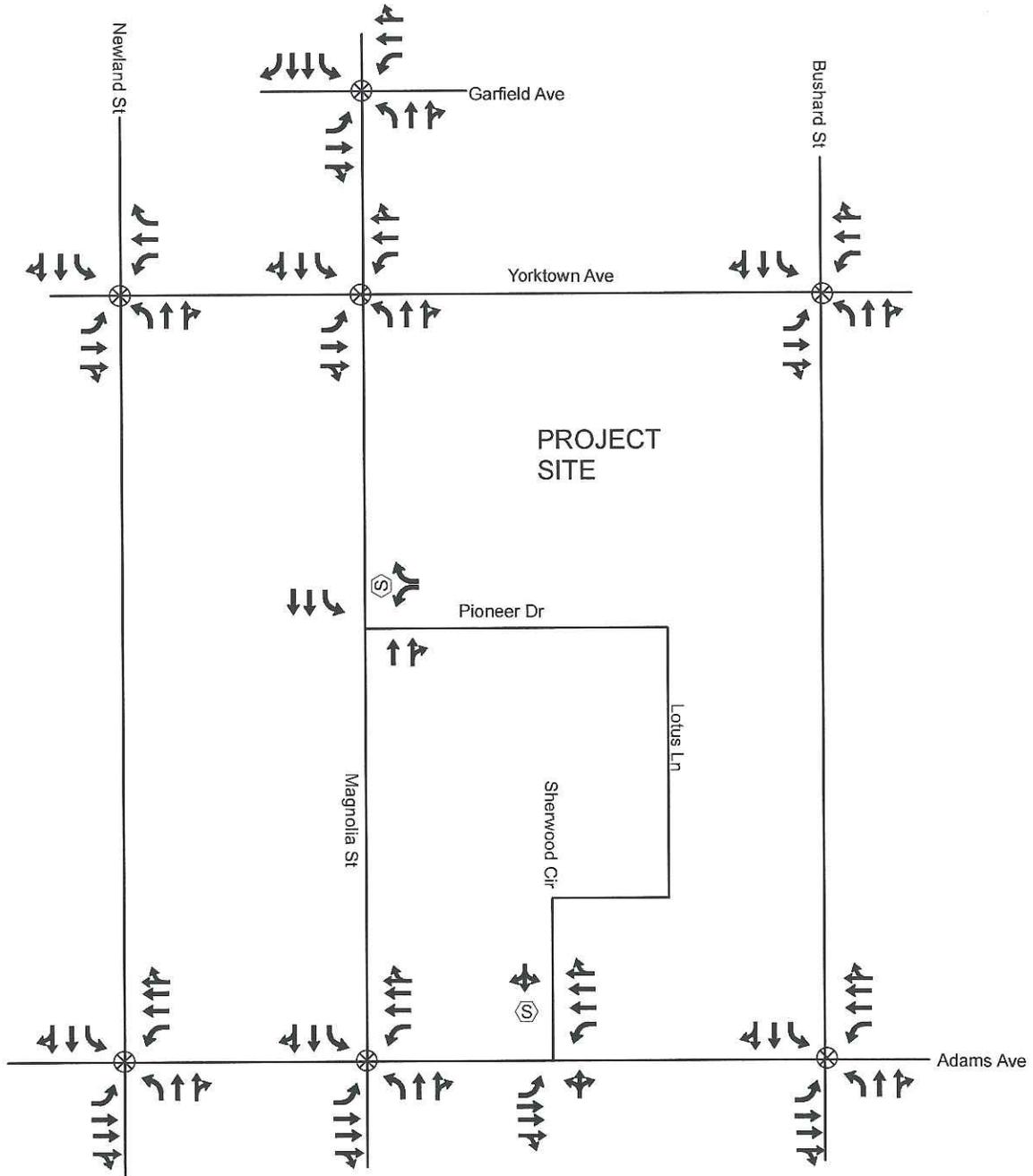
**Civil Engineer**  
WALDEN & ASSOCIATES  
PLANNERS  
2552 White Road, Suite B  
Irvine, CA 92614



**Conceptual Site Plan**  
Fountain Valley School District Site  
Tract 17239 - Pioneer (Wardlow)  
56' Street ROW  
Huntington Beach, California  
April 30, 2012

**APPENDIX B**

**TRAFFIC VOLUME FIGURES**



⊗ = Signalized Intersection

Ⓢ = Stop Sign

FIGURE 1  
 EXISTING ROADWAY CHARACTERISTICS & LANE CONFIGURATION  
 WARDLOW SCHOOL SITE RESIDENTIAL DEVELOPMENT



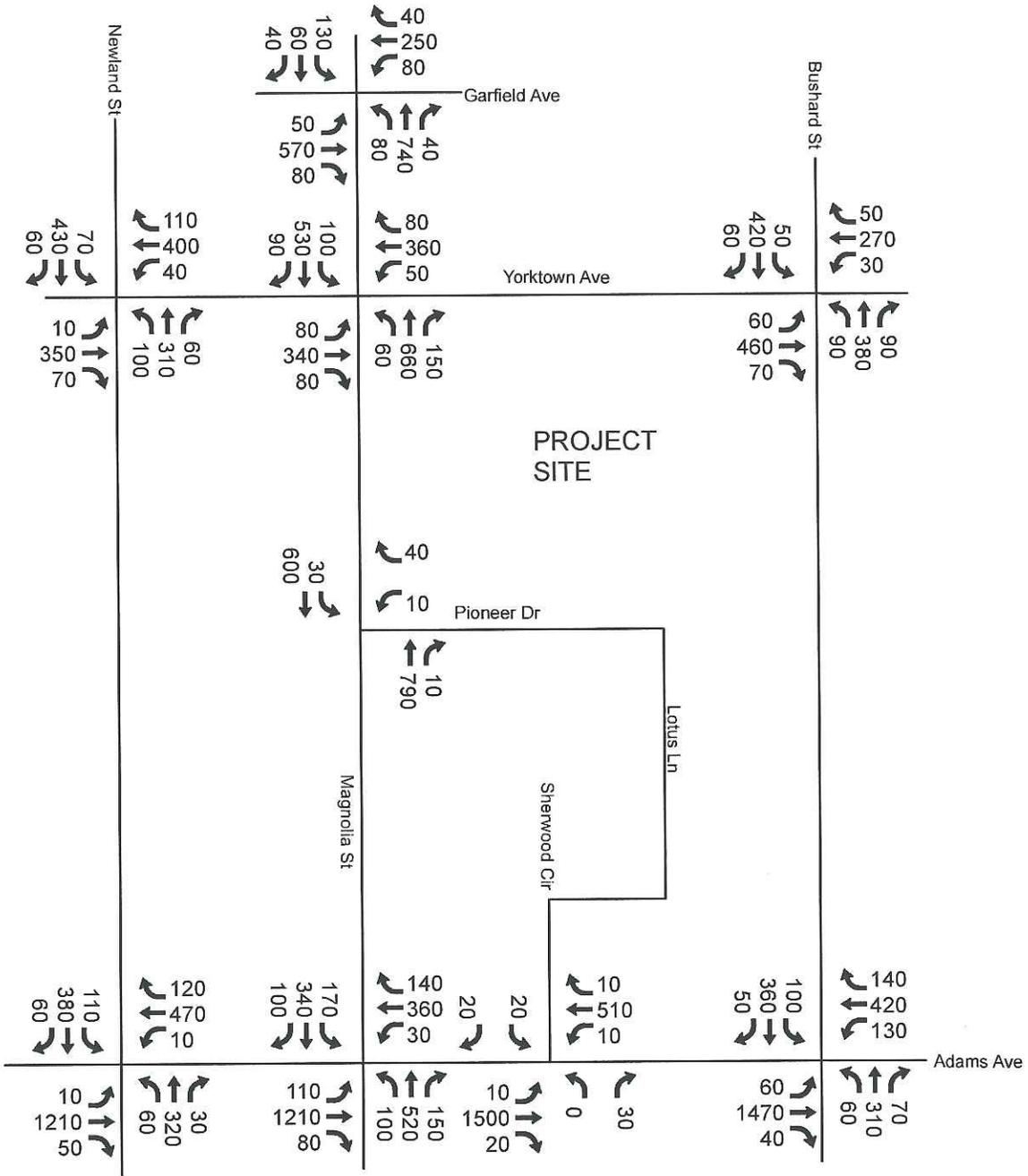


FIGURE 2  
 EXISTING TRAFFIC VOLUMES - AM PEAK HOUR  
 WARDLOW SCHOOL SITE RESIDENTIAL DEVELOPMENT



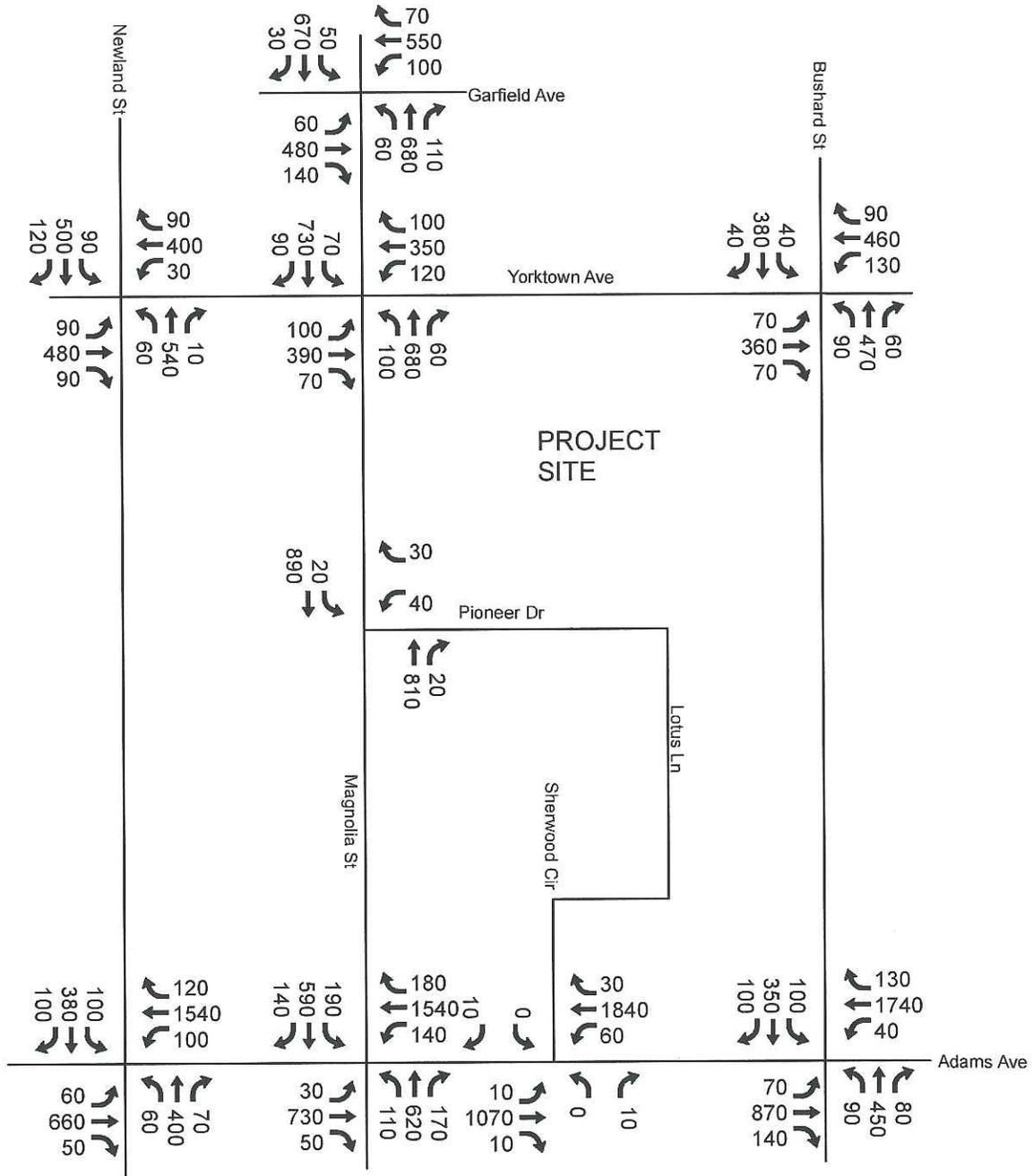


FIGURE 3  
 EXISTING TRAFFIC VOLUMES - PM PEAK HOUR  
 WARDLOW SCHOOL SITE RESIDENTIAL DEVELOPMENT





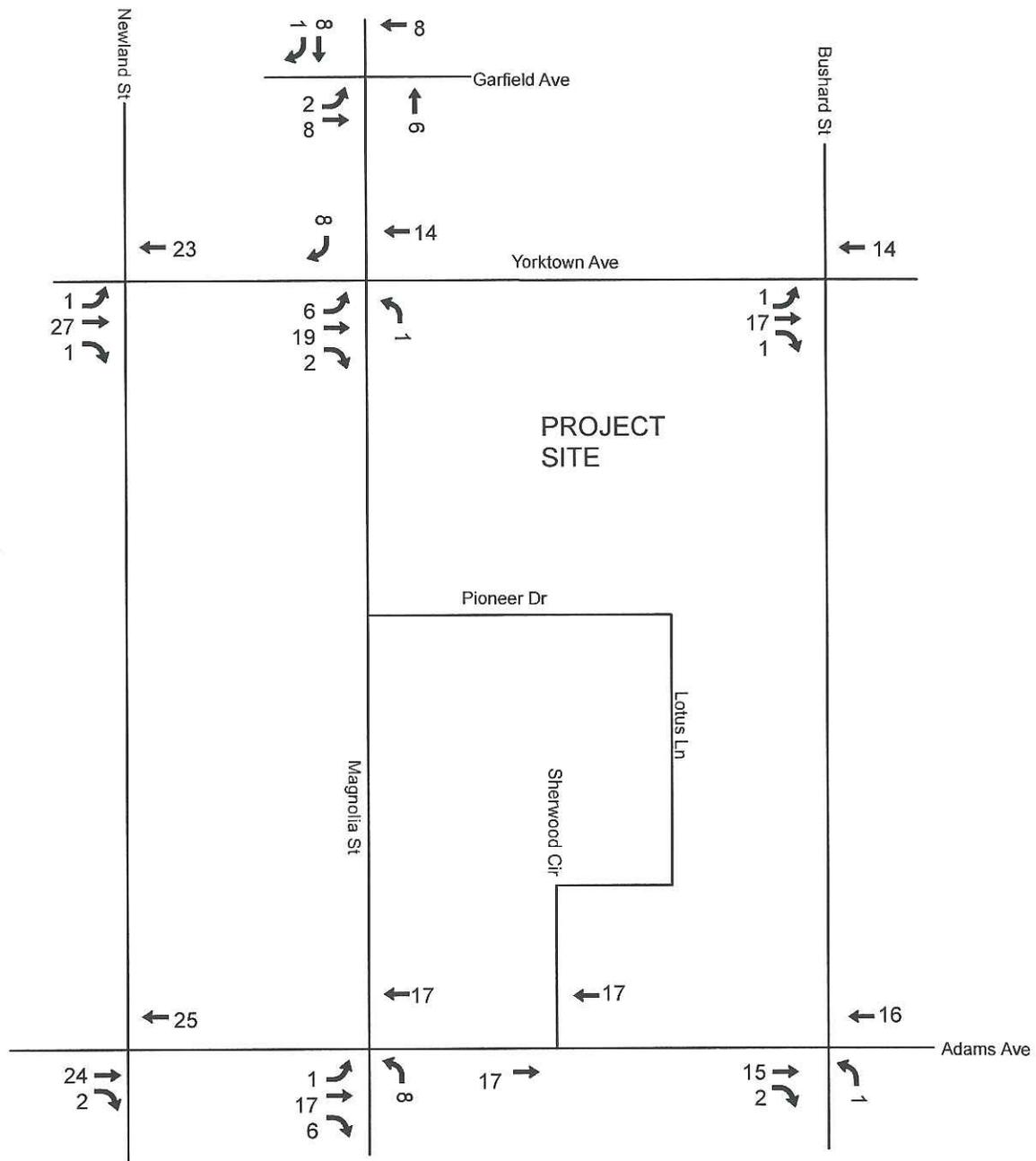


FIGURE 5  
 CUMULATIVE TRAFFIC FROM PROPOSED DEVELOPMENT  
 PROJECTS - PM PEAK HOUR  
 WARDLOW SCHOOL SITE RESIDENTIAL DEVELOPMENT



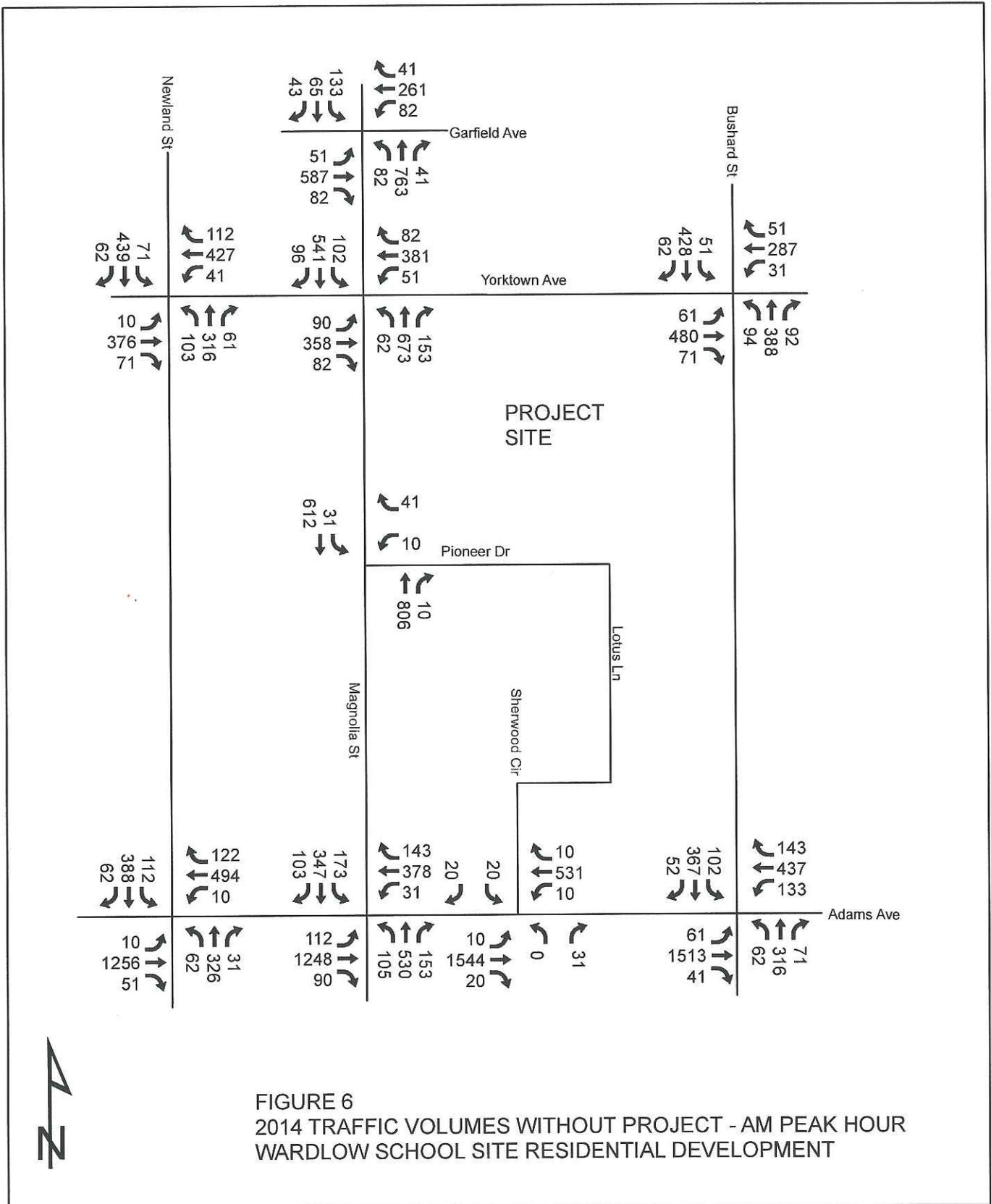


FIGURE 6  
 2014 TRAFFIC VOLUMES WITHOUT PROJECT - AM PEAK HOUR  
 WARDLOW SCHOOL SITE RESIDENTIAL DEVELOPMENT



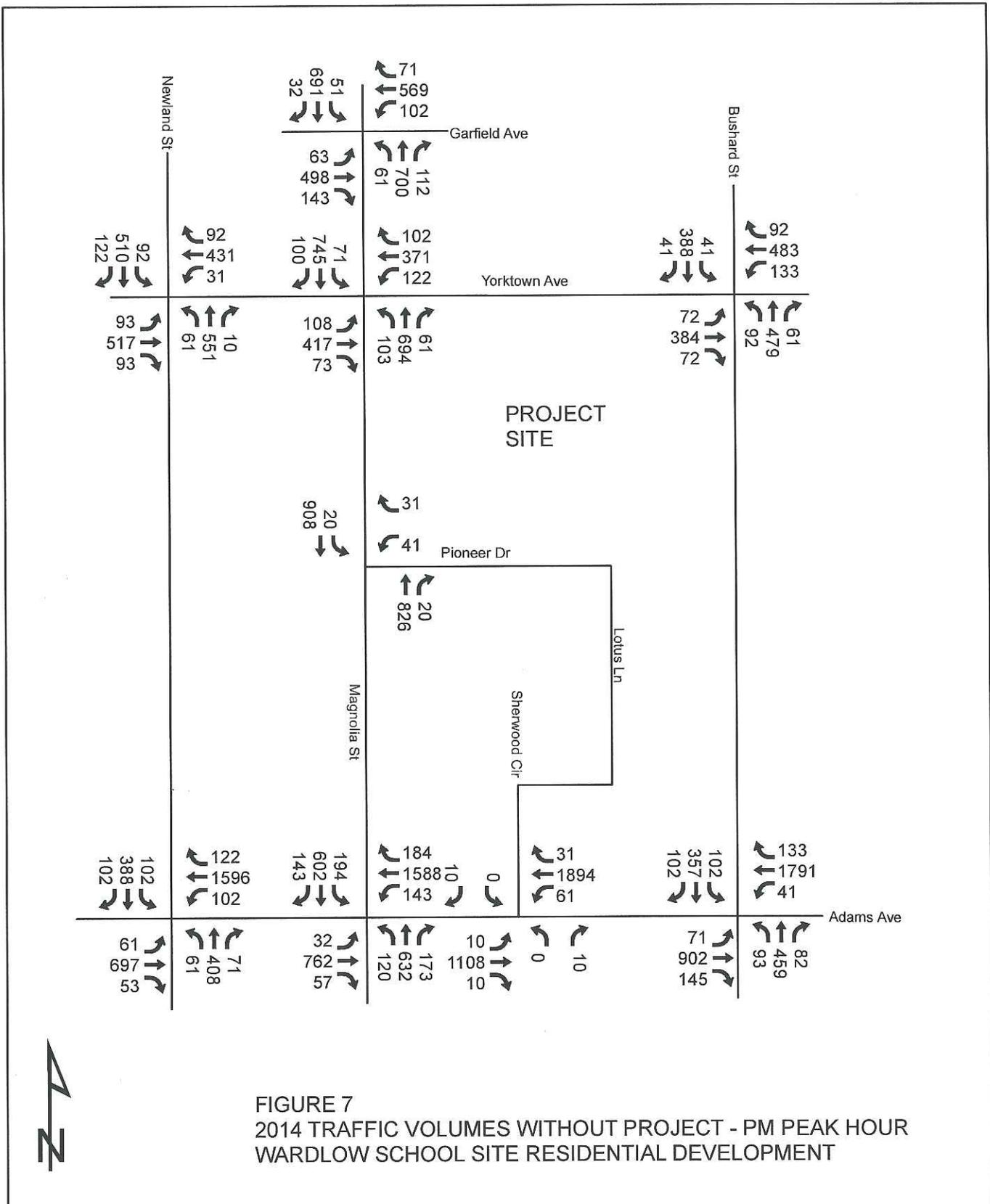


FIGURE 7  
 2014 TRAFFIC VOLUMES WITHOUT PROJECT - PM PEAK HOUR  
 WARDLOW SCHOOL SITE RESIDENTIAL DEVELOPMENT



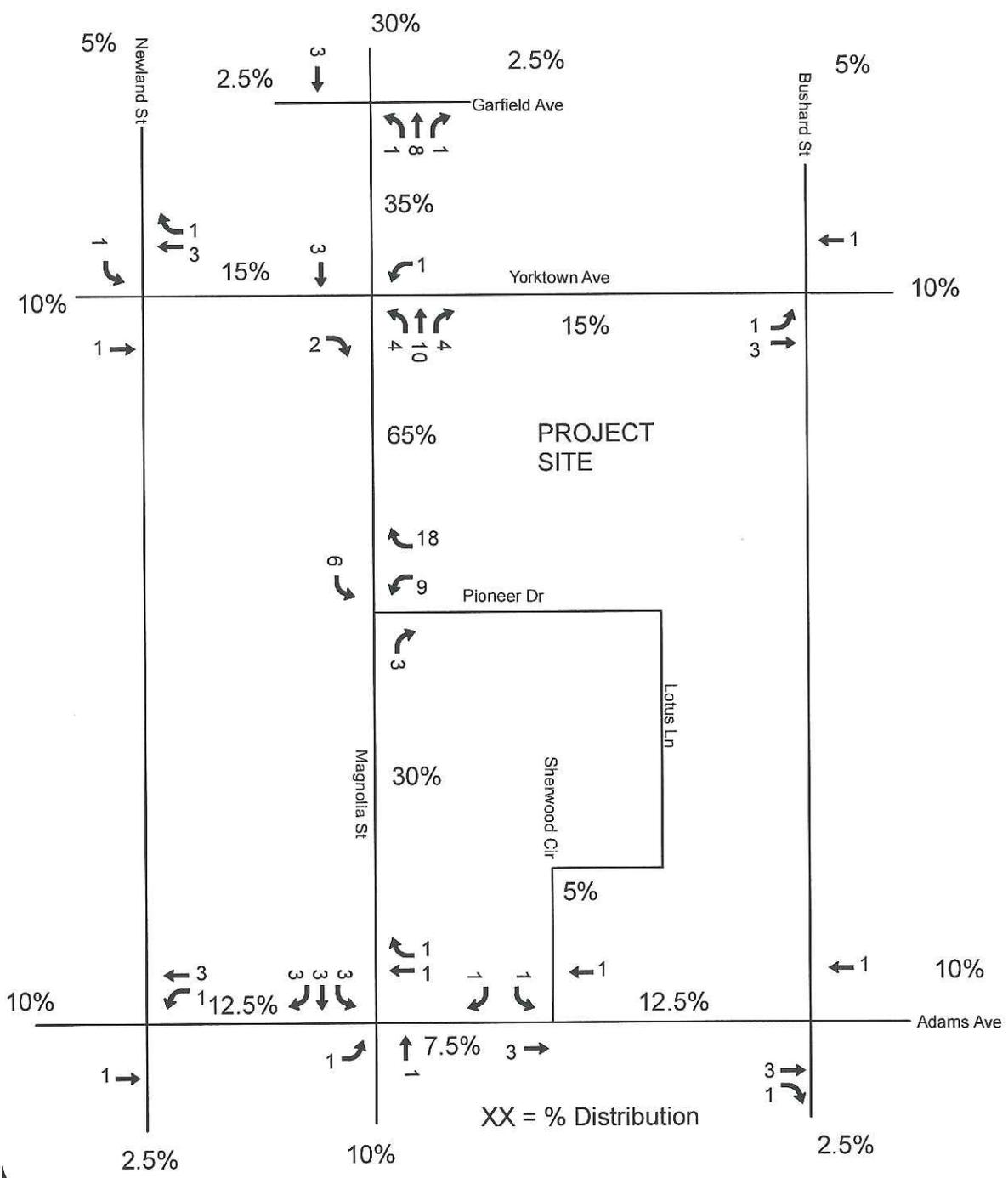


FIGURE 8  
 PROJECT GENERATED TRAFFIC - AM PEAK HOUR  
 WARDLOW SCHOOL SITE RESIDENTIAL DEVELOPMENT



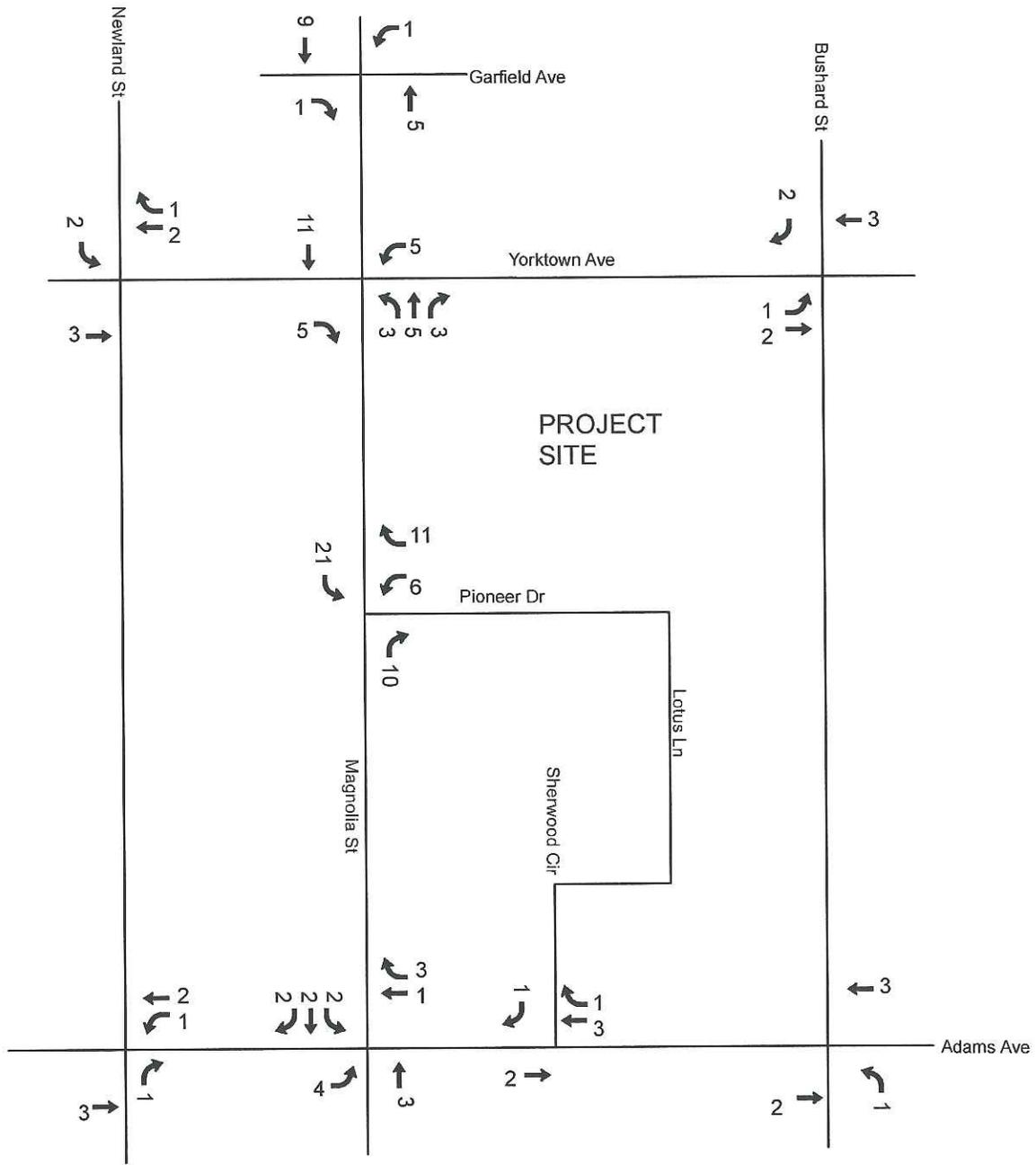


FIGURE 9  
 PROJECT GENERATED TRAFFIC - PM PEAK HOUR  
 WARDLOW SCHOOL SITE RESIDENTIAL DEVELOPMENT



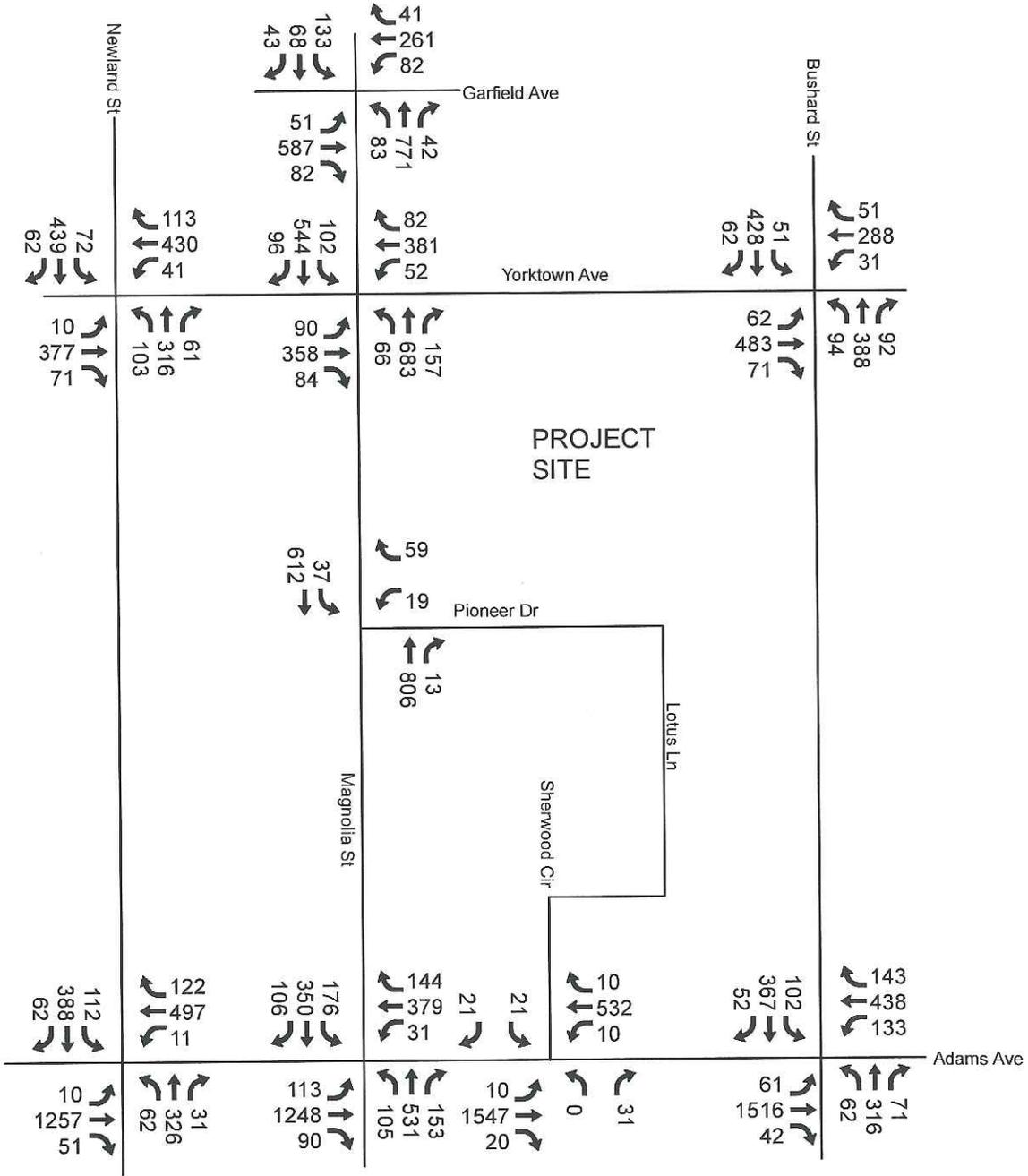


FIGURE 10  
 2014 TRAFFIC VOLUMES WITH PROJECT - AM PEAK HOUR  
 WARDLOW SCHOOL SITE RESIDENTIAL DEVELOPMENT



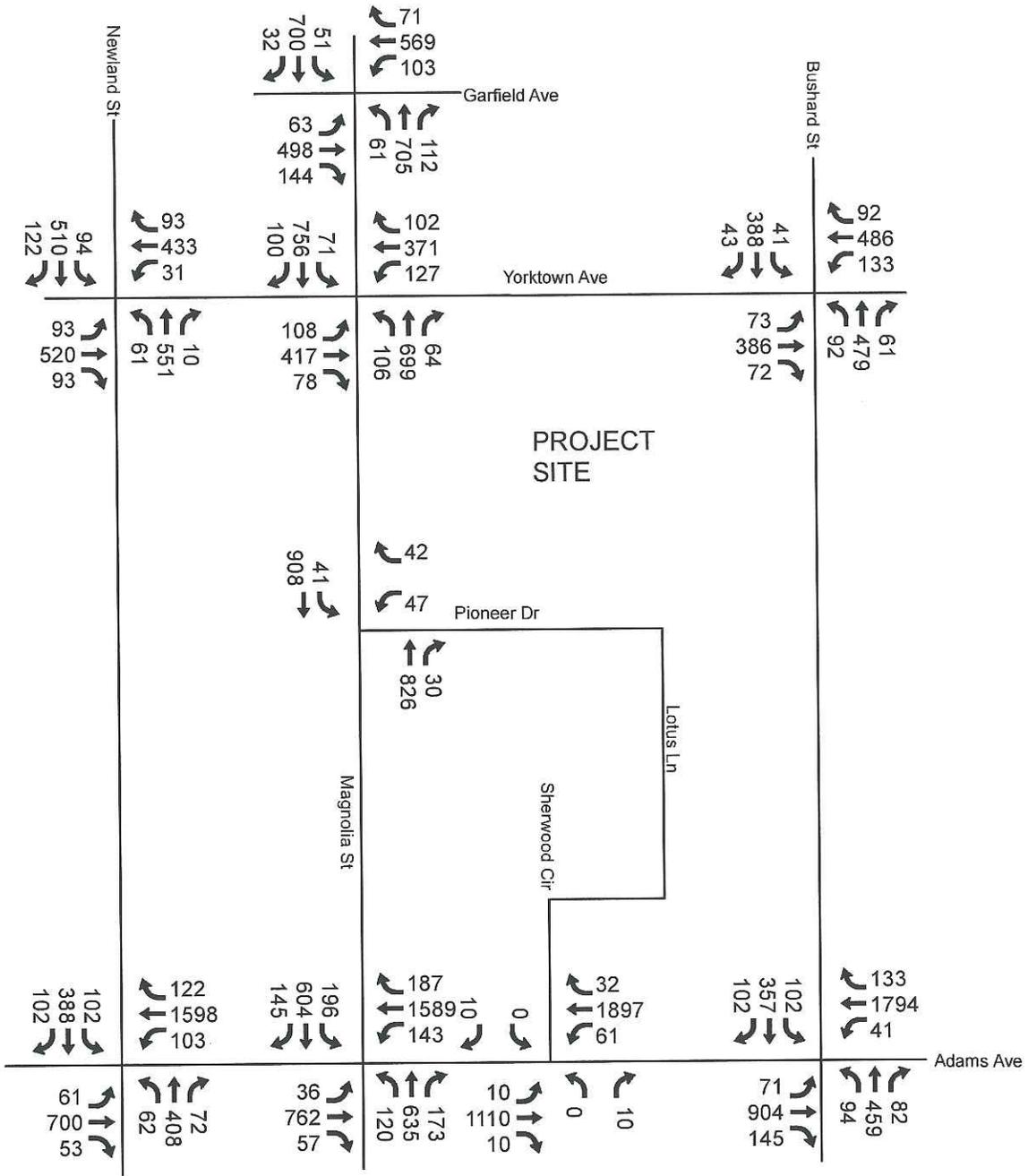


FIGURE 11  
 2014 TRAFFIC VOLUMES WITH PROJECT - PM PEAK HOUR  
 WARDLOW SCHOOL SITE RESIDENTIAL DEVELOPMENT



**APPENDIX C**  
**LEVEL OF SERVICE CALCULATIONS**

# LEVEL OF SERVICE CALCULATIONS INTERSECTION CAPACITY UTILIZATION METHODOLOGY

**Jurisdiction:** City of Huntington Beach

**Project:** Wardlow School Site Residential Development

**Intersection:** Magnolia Street/Garfield Avenue

**Time Period:** AM Peak Hour

**Scenarios:** Existing Conditions, Existing plus Project, 2014 Without Project, & 2014 With Project

Direction/ Movement	Number Of Lanes	Capacity	Existing Conditions		Existing Plus Project		2014 Without Project		2014 With Project	
			Peak Hour Traffic Volume	Volume/ Capacity Ratio						
NBL	1	1700	80	0.047	81	0.048	82	0.048	83	0.049
NBT	2	3400	740	0.229*	748	0.232*	763	0.236*	771	0.239*
NBR	S	S	40	S	41	S	41	S	42	S
SBL	1	1700	130	0.076*	130	0.076*	133	0.078*	133	0.078*
SBT	2	3400	60	0.018	63	0.019	65	0.019	68	0.020
SBR	1	1700	40	0.024	40	0.024	43	0.025	43	0.025
EBL	1	1700	50	0.029	50	0.029	51	0.030	51	0.030
EBT	2	3400	570	0.191*	570	0.191*	587	0.197*	587	0.197*
EBR	S	S	80	S	80	S	82	S	82	S
WBL	1	1700	80	0.047*	80	0.047*	82	0.048*	82	0.048*
WBT	2	3400	250	0.085	250	0.085	261	0.089	261	0.089
WBR	S	S	40	S	40	S	41	S	41	S
Sum of Critical V/C Ratios				0.543		0.546		0.559		0.562
Clearance Interval				0.050		0.050		0.050		0.050
ICU Value				0.593		0.596		0.609		0.612
Level of Service				A		A		B		B

NOTE: "S" indicates shared lane. "\*" indicates critical movement.

# LEVEL OF SERVICE CALCULATIONS INTERSECTION CAPACITY UTILIZATION METHODOLOGY

**Jurisdiction:** City of Huntington Beach

**Project:** Wardlow School Site Residential Development

**Intersection:** Magnolia Street/Yorktown Avenue

**Time Period:** AM Peak Hour

**Scenarios:** Existing Conditions, Existing plus Project, 2014 Without Project, & 2014 With Project

Direction/ Movement	Number Of Lanes	Capacity	Existing Conditions		Existing Plus Project		2014 Without Project		2014 With Project	
			Peak Hour Traffic Volume	Volume/ Capacity Ratio						
NBL	1	1700	60	0.035	64	0.036	62	0.036	66	0.039
NBT	2	3400	660	0.238*	670	0.242*	673	0.243*	683	0.247*
NBR	S	S	150	S	154	S	153	S	157	S
SBL	1	1700	100	0.059*	100	0.059*	102	0.060*	102	0.060*
SBT	2	3400	530	0.182	533	0.183	541	0.187	544	0.188
SBR	S	S	90	S	90	S	96	S	96	S
EBL	1	1700	80	0.047*	80	0.047*	90	0.053*	90	0.053*
EBT	2	3400	340	0.124	340	0.124	358	0.129	358	0.129
EBR	S	S	80	S	82	S	82	S	84	S
WBL	1	1700	50	0.029	51	0.030	51	0.030	52	0.031
WBT	2	3400	360	0.129*	360	0.129*	381	0.136*	381	0.136*
WBR	S	S	80	S	80	S	82	S	82	S
Sum of Critical V/C Ratios				0.473		0.477		0.492		0.496
Clearance Interval				0.050		0.050		0.050		0.050
ICU Value				0.523		0.527		0.542		0.546
Level of Service				A		A		A		A

NOTE: "S" indicates shared lane. "\*" indicates critical movement.

# LEVEL OF SERVICE CALCULATIONS INTERSECTION CAPACITY UTILIZATION METHODOLOGY

**Jurisdiction:** City of Huntington Beach

**Project:** Wardlow School Site Residential Development

**Intersection:** Magnolia Street/Adams Avenue

**Time Period:** AM Peak Hour

**Scenarios:** Existing Conditions, Existing plus Project, 2014 Without Project, & 2014 With Project

Direction/ Movement	Number Of Lanes	Capacity	Existing Conditions		Existing Plus Project		2014 Without Project		2014 With Project	
			Peak Hour Traffic Volume	Volume/ Capacity Ratio						
NBL	1	1700	100	0.059	100	0.059	105	0.062	105	0.062
NBT	2	3400	520	0.197*	521	0.197*	530	0.201*	531	0.201*
NBR	S	S	150	S	150	S	153	S	153	S
SBL	1	1700	170	0.100*	173	0.102*	173	0.102*	176	0.104*
SBT	2	3400	340	0.129	343	0.131	347	0.132	350	0.134
SBR	S	S	100	S	103	S	103	S	106	S
EBL	1	1700	110	0.065	111	0.065	112	0.066	113	0.066
EBT	3	5100	1210	0.253*	1210	0.253*	1248	0.262*	1248	0.262*
EBR	S	S	80	S	80	S	90	S	90	S
WBL	1	1700	30	0.018*	30	0.018*	31	0.018*	31	0.018*
WBT	3	5100	360	0.098	361	0.098	378	0.102	379	0.103
WBR	S	S	140	S	141	S	143	S	144	S
Sum of Critical V/C Ratios				0.568		0.570		0.583		0.585
Clearance Interval				0.050		0.050		0.050		0.050
ICU Value				0.618		0.620		0.633		0.635
Level of Service				B		B		B		B

NOTE: "S" indicates shared lane. "\*" indicates critical movement.

# LEVEL OF SERVICE CALCULATIONS INTERSECTION CAPACITY UTILIZATION METHODOLOGY

**Jurisdiction:** City of Huntington Beach

**Project:** Wardlow School Site Residential Development

**Intersection:** Newland Street/Yorktown Avenue

**Time Period:** AM Peak Hour

**Scenarios:** Existing Conditions, Existing plus Project, 2014 Without Project, & 2014 With Project

Direction/ Movement	Number Of Lanes	Capacity	Existing Conditions			Existing Plus Project			2014 Without Project			2014 With Project		
			Peak Hour Traffic Volume	Volume/ Capacity Ratio										
NBL	1	1700	100	0.059*	100	0.059*	103	0.061*	103	0.061*	103	0.061*		
NBT	2	3400	310	0.109	310	0.109	316	0.111	316	0.111	316	0.111		
NBR	S	S	60	S	60	S	61	S	61	S	61	S		
SBL	1	1700	70	0.041	71	0.042	71	0.042	71	0.042	72	0.042		
SBT	2	3400	430	0.144*	430	0.144*	439	0.147*	439	0.147*	439	0.147*		
SBR	S	S	60	S	60	S	62	S	62	S	62	S		
EBL	1	1700	10	0.006*	10	0.006*	10	0.006*	10	0.006*	10	0.006*		
EBT	2	3400	350	0.124	351	0.124	376	0.131	377	0.132	377	0.132		
EBR	S	S	70	S	70	S	71	S	71	S	71	S		
WBL	1	1700	40	0.024	40	0.024	41	0.024	41	0.024	41	0.024		
WBT	1	1700	400	0.235*	403	0.237*	427	0.251*	430	0.253*	430	0.253*		
WBR	1	1700	110	0.065	111	0.065	112	0.066	113	0.066	113	0.066		
Sum of Critical V/C Ratios				0.444		0.446		0.465		0.467		0.467		
Clearance Interval				0.050		0.050		0.050		0.050		0.050		
ICU Value				0.494		0.496		0.515		0.517		0.517		
Level of Service				A		A		A		A		A		

NOTE: "S" indicates shared lane. "\*" indicates critical movement.

# LEVEL OF SERVICE CALCULATIONS INTERSECTION CAPACITY UTILIZATION METHODOLOGY

**Jurisdiction:** City of Huntington Beach

**Project:** Wardlow School Site Residential Development

**Intersection:** Newland Street/Adams Avenue

**Time Period:** AM Peak Hour

**Scenarios:** Existing Conditions, Existing plus Project, 2014 Without Project, & 2014 With Project

Direction/ Movement	Number Of Lanes	Capacity	Existing Conditions		Existing Plus Project		2014 Without Project		2014 With Project	
			Peak Hour Traffic Volume	Volume/ Capacity Ratio						
NBL	1	1700	60	0.035	60	0.035	62	0.036	62	0.036
NBT	2	3400	320	0.103*	320	0.103*	326	0.105*	326	0.105*
NBR	S	S	30	S	30	S	31	S	31	S
SBL	1	1700	110	0.065*	110	0.065*	112	0.066*	112	0.066*
SBT	2	3400	380	0.129	380	0.129	388	0.132	388	0.132
SBR	S	S	60	S	60	S	62	S	62	S
EBL	1	1700	10	0.006	10	0.006	10	0.006	10	0.006
EBT	3	5100	1210	0.247*	1211	0.247*	1256	0.256*	1257	0.256*
EBR	S	S	50	S	50	S	51	S	51	S
WBL	1	1700	10	0.006*	11	0.006*	10	0.006*	11	0.006*
WBT	3	5100	470	0.116	473	0.116	494	0.121	497	0.121
WBR	S	S	120	S	120	S	122	S	122	S
Sum of Critical V/C Ratios				0.421		0.421		0.433		0.433
Clearance Interval				0.050		0.050		0.050		0.050
ICU Value				0.471		0.471		0.483		0.483
Level of Service				A		A		A		A

NOTE: "S" indicates shared lane. "\*" indicates critical movement.

# LEVEL OF SERVICE CALCULATIONS INTERSECTION CAPACITY UTILIZATION METHODOLOGY

**Jurisdiction:** City of Huntington Beach

**Project:** Wardlow School Site Residential Development

**Intersection:** Bushard Street/Yorktown Avenue

**Time Period:** AM Peak Hour

**Scenarios:** Existing Conditions, Existing plus Project, 2014 Without Project, & 2014 With Project

Direction/ Movement	Number Of Lanes	Capacity	Existing Conditions		Existing Plus Project		2014 Without Project		2014 With Project	
			Peak Hour Traffic Volume	Volume/ Capacity Ratio						
NBL	1	1700	90	0.053*	90	0.053*	94	0.055*	94	0.055*
NBT	2	3400	380	0.138	380	0.138	388	0.141	388	0.141
NBR	S	S	90	S	90	S	92	S	92	S
SBL	1	1700	50	0.029	50	0.029	51	0.030	51	0.030
SBT	2	3400	420	0.141*	420	0.141*	428	0.144*	428	0.144*
SBR	S	S	60	S	60	S	62	S	62	S
EBL	1	1700	60	0.035	61	0.036	61	0.036	62	0.036
EBT	2	3400	460	0.156*	463	0.157*	480	0.162*	483	0.163*
EBR	S	S	70	S	70	S	71	S	71	S
WBL	1	1700	30	0.018*	30	0.018*	31	0.018*	31	0.018*
WBT	2	3400	270	0.094	271	0.094	287	0.099	288	0.100
WBR	S	S	50	S	50	S	51	S	51	S
Sum of Critical V/C Ratios				0.368		0.369		0.379		0.380
Clearance Interval				0.050		0.050		0.050		0.050
ICU Value				0.418		0.419		0.429		0.430
Level of Service				A		A		A		A

NOTE: "S" indicates shared lane. "\*\*" indicates critical movement.

# LEVEL OF SERVICE CALCULATIONS INTERSECTION CAPACITY UTILIZATION METHODOLOGY

**Jurisdiction:** City of Huntington Beach

**Project:** Wardlow School Site Residential Development

**Intersection:** Bushard Street/Adams Avenue

**Time Period:** AM Peak Hour

**Scenarios:** Existing Conditions, Existing plus Project, 2014 Without Project, & 2014 With Project

Direction/ Movement	Number Of Lanes	Capacity	Existing Conditions			Existing Plus Project			2014 Without Project			2014 With Project		
			Peak Hour Traffic Volume	Volume/ Capacity Ratio										
NBL	1	1700	60	0.035	60	0.035	62	0.036	62	0.036	62	0.036		
NBT	2	3400	310	0.112*	310	0.112*	316	0.114*	316	0.114*	316	0.114*		
NBR	S	S	70	S	70	S	71	S	71	S	71	S		
SBL	1	1700	100	0.059*	100	0.059*	102	0.060*	102	0.060*	102	0.060*		
SBT	2	3400	360	0.121	360	0.121	367	0.123	367	0.123	367	0.123		
SBR	S	S	50	S	50	S	52	S	52	S	52	S		
EBL	1	1700	60	0.035	60	0.035	61	0.036	61	0.036	61	0.036		
EBT	3	5100	1470	0.296*	1473	0.297*	1513	0.305*	1516	0.305*	1516	0.305*		
EBR	S	S	40	S	41	S	41	S	42	S	42	S		
WBL	1	1700	130	0.076*	130	0.076*	133	0.078*	133	0.078*	133	0.078*		
WBT	3	5100	420	0.110	421	0.110	437	0.114	438	0.114	438	0.114		
WBR	S	S	140	S	140	S	143	S	143	S	143	S		
Sum of Critical V/C Ratios				0.543		0.544		0.557		0.557		0.557		
Clearance Interval				0.050		0.050		0.050		0.050		0.050		
ICU Value				0.593		0.594		0.607		0.607		0.607		
Level of Service				A		A		B		B		B		

NOTE: "S" indicates shared lane. "\*" indicates critical movement.

# LEVEL OF SERVICE CALCULATIONS INTERSECTION CAPACITY UTILIZATION METHODOLOGY

**Jurisdiction:** City of Huntington Beach

**Project:** Wardlow School Site Residential Development

**Intersection:** Magnolia Street/Garfield Avenue

**Time Period:** PM Peak Hour

**Scenarios:** Existing Conditions, Existing plus Project, 2014 Without Project, & 2014 With Project

Direction/ Movement	Number Of Lanes	Capacity	Existing Conditions			Existing Plus Project			2014 Without Project			2014 With Project		
			Peak Hour Traffic Volume	Volume/ Capacity Ratio										
NBL	1	1700	60	0.035	60	0.035	61	0.036	61	0.036	61	0.036		
NBT	2	3400	680	0.232*	685	0.234*	700	0.239*	705	0.240*	705	0.240*		
NBR	S	S	110	S	110	S	112	S	112	S	112	S		
SBL	1	1700	50	0.029*	50	0.029*	51	0.030*	51	0.030*	51	0.030*		
SBT	2	3400	670	0.197	679	0.200	691	0.203	700	0.207	700	0.207		
SBR	1	1700	30	0.018	30	0.018	32	0.019	32	0.019	32	0.019		
EBL	1	1700	60	0.035	60	0.035	63	0.037	63	0.037	63	0.037		
EBT	2	3400	480	0.182*	480	0.183*	498	0.189*	498	0.189*	498	0.189*		
EBR	S	S	140	S	141	S	143	S	144	S	144	S		
WBL	1	1700	100	0.059*	101	0.060*	102	0.060*	103	0.061*	103	0.061*		
WBT	2	3400	550	0.182	550	0.182	569	0.188	569	0.188	569	0.188		
WBR	S	S	70	S	70	S	71	S	71	S	71	S		
Sum of Critical V/C Ratios				0.502		0.506		0.518		0.520		0.520		
Clearance Interval				0.050		0.050		0.050		0.050		0.050		
ICU Value				0.552		0.556		0.568		0.570		0.570		
Level of Service				A		A		A		A		A		

NOTE: "S" indicates shared lane. "\*" indicates critical movement.

# LEVEL OF SERVICE CALCULATIONS INTERSECTION CAPACITY UTILIZATION METHODOLOGY

**Jurisdiction:** City of Huntington Beach

**Project:** Wardlow School Site Residential Development

**Intersection:** Magnolia Street/Yorktown Avenue

**Time Period:** PM Peak Hour

**Scenarios:** Existing Conditions, Existing plus Project, 2014 Without Project, & 2014 With Project

Direction/ Movement	Number Of Lanes	Capacity	Existing Conditions			Existing Plus Project			2014 Without Project			2014 With Project		
			Peak Hour Traffic Volume	Volume/ Capacity Ratio										
NBL	1	1700	100	0.059*	103	0.061*	103	0.061*	106	0.062*				
NBT	2	3400	680	0.217	685	0.220	694	0.222	699	0.224				
NBR	S	S	60	S	63	S	61	S	64	S				
SBL	1	1700	70	0.041	70	0.041	71	0.042	71	0.042				
SBT	2	3400	730	0.241*	741	0.244*	745	0.249*	756	0.252*				
SBR	S	S	90	S	90	S	100	S	100	S				
EBL	1	1700	100	0.059	100	0.059	108	0.064	108	0.064				
EBT	2	3400	390	0.135*	390	0.137*	417	0.144*	417	0.146*				
EBR	S	S	70	S	75	S	73	S	78	S				
WBL	1	1700	120	0.071*	125	0.074*	122	0.072*	127	0.075*				
WBT	2	3400	350	0.132	350	0.132	371	0.139	371	0.139				
WBR	S	S	100	S	100	S	102	S	102	S				
Sum of Critical V/C Ratios				0.506		0.516		0.526		0.535				
Clearance Interval				0.050		0.050		0.050		0.050				
ICU Value				0.556		0.566		0.576		0.585				
Level of Service				A		A		A		A				

NOTE: "S" indicates shared lane. "\*" indicates critical movement.

# LEVEL OF SERVICE CALCULATIONS INTERSECTION CAPACITY UTILIZATION METHODOLOGY

**Jurisdiction:** City of Huntington Beach

**Project:** Wardlow School Site Residential Development

**Intersection:** Magnolia Street/Adams Avenue

**Time Period:** PM Peak Hour

**Scenarios:** Existing Conditions, Existing plus Project, 2014 Without Project, & 2014 With Project

Direction/ Movement	Number Of Lanes	Capacity	Existing Conditions			Existing Plus Project			2014 Without Project			2014 With Project		
			Peak Hour Traffic Volume	Volume/ Capacity Ratio										
NBL	1	1700	110	0.065	110	0.065	120	0.071	120	0.071	120	0.071		
NBT	2	3400	620	0.232*	623	0.233*	632	0.237*	635	0.238*	635	0.238*		
NBR	S	S	170	S	170	S	173	S	173	S	173	S		
SBL	1	1700	190	0.112*	192	0.113*	194	0.114*	196	0.115*	196	0.115*		
SBT	2	3400	590	0.215	592	0.216	602	0.219	604	0.220	604	0.220		
SBR	S	S	140	S	142	S	143	S	145	S	145	S		
EBL	1	1700	30	0.018*	34	0.020*	32	0.019*	36	0.021*	36	0.021*		
EBT	3	5100	730	0.153	730	0.153	762	0.161	762	0.161	762	0.161		
EBR	S	S	50	S	50	S	57	S	57	S	57	S		
WBL	1	1700	140	0.082	140	0.082	143	0.084	143	0.084	143	0.084		
WBT	3	5100	1540	0.337*	1541	0.338*	1588	0.347*	1589	0.348*	1589	0.348*		
WBR	S	S	180	S	183	S	184	S	187	S	187	S		
Sum of Critical V/C Ratios				0.699		0.704		0.717		0.722		0.722		
Clearance Interval				0.050		0.050		0.050		0.050		0.050		
ICU Value				0.749		0.754		0.767		0.772		0.772		
Level of Service				C		C		C		C		C		

NOTE: "S" indicates shared lane. "\*" indicates critical movement.

# LEVEL OF SERVICE CALCULATIONS INTERSECTION CAPACITY UTILIZATION METHODOLOGY

**Jurisdiction:** City of Huntington Beach

**Project:** Wardlow School Site Residential Development

**Intersection:** Newland Street/Yorktown Avenue

**Time Period:** PM Peak Hour

**Scenarios:** Existing Conditions, Existing plus Project, 2014 Without Project, & 2014 With Project

Direction/ Movement	Number Of Lanes	Capacity	Existing Conditions		Existing Plus Project		2014 Without Project		2014 With Project	
			Peak Hour Traffic Volume	Volume/ Capacity Ratio						
NBL	1	1700	60	0.035*	60	0.035*	61	0.036*	61	0.036*
NBT	2	3400	540	0.162	540	0.162	551	0.165	551	0.165
NBR	S	S	10	S	10	S	10	S	10	S
SBL	1	1700	90	0.053	92	0.054	92	0.054	94	0.055
SBT	2	3400	500	0.182*	500	0.182*	510	0.186*	510	0.186*
SBR	S	S	120	S	120	S	122	S	122	S
EBL	1	1700	90	0.053*	90	0.053*	93	0.055*	93	0.055*
EBT	2	3400	480	0.168	483	0.169	517	0.179	520	0.180
EBR	S	S	90	S	90	S	93	S	93	S
WBL	1	1700	30	0.018	30	0.018	31	0.018	31	0.018
WBT	1	1700	400	0.235*	402	0.236*	431	0.254*	433	0.255*
WBR	1	1700	90	0.053	91	0.054	92	0.054	93	0.055
Sum of Critical V/C Ratios				0.505		0.506		0.531		0.532
Clearance Interval				0.050		0.050		0.050		0.050
ICU Value				0.555		0.556		0.581		0.582
Level of Service				A		A		A		A

NOTE: "S" indicates shared lane. "\*\*" indicates critical movement.

# LEVEL OF SERVICE CALCULATIONS INTERSECTION CAPACITY UTILIZATION METHODOLOGY

**Jurisdiction:** City of Huntington Beach

**Project:** Wardlow School Site Residential Development

**Intersection:** Newland Street/Adams Avenue

**Time Period:** PM Peak Hour

**Scenarios:** Existing Conditions, Existing plus Project, 2014 Without Project, & 2014 With Project

Direction/ Movement	Number Of Lanes	Capacity	Existing Conditions		Existing Plus Project		2014 Without Project		2014 With Project	
			Peak Hour Traffic Volume	Volume/ Capacity Ratio						
NBL	1	1700	60	0.035	60	0.035	61	0.036	61	0.036
NBT	2	3400	400	0.138*	400	0.139*	408	0.141*	408	0.141*
NBR	S	S	70	S	71	S	71	S	72	S
SBL	1	1700	100	0.059*	100	0.059*	102	0.060*	102	0.060*
SBT	2	3400	380	0.141	380	0.141	388	0.144	388	0.144
SBR	S	S	100	S	100	S	102	S	102	S
EBL	1	1700	60	0.035*	60	0.035*	61	0.036*	61	0.036*
EBT	3	5100	660	0.139	663	0.140	697	0.147	700	0.148
EBR	S	S	50	S	50	S	53	S	53	S
WBL	1	1700	100	0.059	101	0.059	102	0.060	103	0.061
WBT	3	5100	1540	0.325*	1542	0.326*	1596	0.337*	1598	0.337*
WBR	S	S	120	S	120	S	122	S	122	S
Sum of Critical V/C Ratios				0.557		0.559		0.574		0.574
Clearance Interval				0.050		0.050		0.050		0.050
ICU Value				0.607		0.609		0.624		0.624
Level of Service				B		B		B		B

NOTE: "S" indicates shared lane. "\*" indicates critical movement.

# LEVEL OF SERVICE CALCULATIONS INTERSECTION CAPACITY UTILIZATION METHODOLOGY

**Jurisdiction:** City of Huntington Beach  
**Project:** Wardlow School Site Residential Development  
**Intersection:** Bushard Street/Yorktown Avenue  
**Time Period:** PM Peak Hour  
**Scenarios:** Existing Conditions, Existing plus Project, 2014 Without Project, & 2014 With Project

Direction/ Movement	Number Of Lanes	Capacity	Existing Conditions		Existing Plus Project		2014 Without Project		2014 With Project	
			Peak Hour Traffic Volume	Volume/ Capacity Ratio						
NBL	1	1700	90	0.053	90	0.053	92	0.054	92	0.054
NBT	2	3400	470	0.156*	470	0.156*	479	0.159*	479	0.159*
NBR	S	S	60	S	60	S	61	S	61	S
SBL	1	1700	40	0.024*	40	0.024*	41	0.024*	41	0.024*
SBT	2	3400	380	0.124	380	0.124	388	0.126	388	0.127
SBR	S	S	40	S	42	S	41	S	43	S
EBL	1	1700	70	0.041*	71	0.042*	72	0.042	73	0.043
EBT	2	3400	360	0.126	362	0.127	384	0.134*	386	0.135*
EBR	S	S	70	S	70	S	72	S	72	S
WBL	1	1700	130	0.076	130	0.076	133	0.078*	133	0.078*
WBT	2	3400	460	0.162*	463	0.163*	483	0.169	486	0.170
WBR	S	S	90	S	90	S	92	S	92	S
Sum of Critical V/C Ratios				0.383		0.385		0.395		0.396
Clearance Interval				0.050		0.050		0.050		0.050
ICU Value				0.433		0.435		0.445		0.446
Level of Service				A		A		A		A

NOTE: "S" indicates shared lane. "\*\*" indicates critical movement.

# LEVEL OF SERVICE CALCULATIONS INTERSECTION CAPACITY UTILIZATION METHODOLOGY

**Jurisdiction:** City of Huntington Beach

**Project:** Wardlow School Site Residential Development

**Intersection:** Bushard Street/Adams Avenue

**Time Period:** PM Peak Hour

**Scenarios:** Existing Conditions, Existing plus Project, 2014 Without Project, & 2014 With Project

Direction/ Movement	Number Of Lanes	Capacity	Existing Conditions		Existing Plus Project		2014 Without Project		2014 With Project	
			Peak Hour Traffic Volume	Volume/ Capacity Ratio						
NBL	1	1700	90	0.053	91	0.054	92	0.055	94	0.055
NBT	2	3400	450	0.156*	450	0.156*	459	0.159*	459	0.159*
NBR	S	S	80	S	80	S	82	S	82	S
SBL	1	1700	100	0.059*	100	0.059*	102	0.060*	102	0.060*
SBT	2	3400	350	0.132	350	0.132	357	0.135	357	0.135
SBR	S	S	100	S	100	S	102	S	102	S
EBL	1	1700	70	0.041*	70	0.041*	71	0.042*	71	0.042*
EBT	3	5100	870	0.198	872	0.198	902	0.205	904	0.206
EBR	S	S	140	S	140	S	145	S	145	S
WBL	1	1700	40	0.024	40	0.024	41	0.024	41	0.024
WBT	3	5100	1740	0.367*	1743	0.367*	1791	0.377*	1794	0.378*
WBR	S	S	130	S	130	S	133	S	133	S
Sum of Critical V/C Ratios				0.623		0.623		0.638		0.639
Clearance Interval				0.050		0.050		0.050		0.050
ICU Value				0.673		0.673		0.688		0.689
Level of Service				B		B		B		B

NOTE: "S" indicates shared lane. "\*" indicates critical movement.

TWO-WAY STOP CONTROL SUMMARY								
General Information				Site Information				
Analyst	R Garland			Intersection	Adams Ave/Shorewood Cir			
Agency/Co.	Garland Associates			Jurisdiction	City of Huntington Beach			
Date Performed	3/6/2009			Analysis Year	Existing			
Analysis Time Period	AM Peak Hour							
Project Description <i>Wardlow School Site Residential Development</i>								
East/West Street: <i>Adams Avenue</i>				North/South Street: <i>Shorewood Circle</i>				
Intersection Orientation: <i>East-West</i>				Study Period (hrs): <i>0.25</i>				
Vehicle Volumes and Adjustments								
Major Street	Eastbound			Westbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume (veh/h)	10	1500	20	10	510	10		
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00		
Hourly Flow Rate, HFR (veh/h)	10	1500	20	10	510	10		
Percent Heavy Vehicles	0	-	-	0	-	-		
Median Type	Undivided							
RT Channelized			0			0		
Lanes	1	2	1	1	2	1		
Configuration	L	T	R	L	T	R		
Upstream Signal		0			0			
Minor Street	Northbound			Southbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume (veh/h)	0		30	20		20		
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00		
Hourly Flow Rate, HFR (veh/h)	0	0	30	20	0	20		
Percent Heavy Vehicles	0	0	0	0	0	0		
Percent Grade (%)		0			0			
Flared Approach		N			N			
Storage		0			0			
RT Channelized			0			0		
Lanes	0	0	0	0	0	0		
Configuration		LR			LR			
Delay, Queue Length, and Level of Service								
Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	L	L	LR			LR		
v (veh/h)	10	10	30			40		
C (m) (veh/h)	1056	445	358			189		
v/c	0.01	0.02	0.08			0.21		
95% queue length	0.03	0.07	0.27			0.77		
Control Delay (s/veh)	8.4	13.3	16.0			29.1		
LOS	A	B	C			D		
Approach Delay (s/veh)	--	--	16.0			29.1		
Approach LOS	--	--	C			D		

TWO-WAY STOP CONTROL SUMMARY								
General Information				Site Information				
Analyst	R Garland			Intersection	Adams Ave/Shorewood Cir			
Agency/Co.	Garland Associates			Jurisdiction	City of Huntington Beach			
Date Performed	2/3/2012			Analysis Year	Existing plus Project			
Analysis Time Period	AM Peak Hour							
Project Description <i>Wardlow School Site Residential Development</i>								
East/West Street: <i>Adams Avenue</i>				North/South Street: <i>Shorewood Circle</i>				
Intersection Orientation: <i>East-West</i>				Study Period (hrs): <i>0.25</i>				
Vehicle Volumes and Adjustments								
Major Street	Eastbound			Westbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume (veh/h)	10	1503	20	10	511	10		
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00		
Hourly Flow Rate, HFR (veh/h)	10	1503	20	10	511	10		
Percent Heavy Vehicles	0	--	--	0	--	--		
Median Type	<i>Undivided</i>							
RT Channelized			0			0		
Lanes	1	2	1	1	2	1		
Configuration	L	T	R	L	T	R		
Upstream Signal		0			0			
Minor Street	Northbound			Southbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume (veh/h)	0		30	21		21		
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00		
Hourly Flow Rate, HFR (veh/h)	0	0	30	21	0	21		
Percent Heavy Vehicles	0	0	0	0	0	0		
Percent Grade (%)	0			0				
Flared Approach		N			N			
Storage		0			0			
RT Channelized			0			0		
Lanes	0	0	0	0	0	0		
Configuration		LR			LR			
Delay, Queue Length, and Level of Service								
Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	L	L	LR			LR		
v (veh/h)	10	10	30			42		
C (m) (veh/h)	1056	444	357			187		
v/c	0.01	0.02	0.08			0.22		
95% queue length	0.03	0.07	0.27			0.83		
Control Delay (s/veh)	8.4	13.3	16.0			29.7		
LOS	A	B	C			D		
Approach Delay (s/veh)	--	--	16.0			29.7		
Approach LOS	--	--	C			D		

ATTACHMENT NO. 3.48

TWO-WAY STOP CONTROL SUMMARY								
General Information				Site Information				
Analyst	R Garland			Intersection	Adams Ave/Shorewood Cir			
Agency/Co.	Garland Associates			Jurisdiction	City of Huntington Beach			
Date Performed	5/14/2012			Analysis Year	2014 Without Project			
Analysis Time Period	AM Peak Hour							
Project Description <i>Wardlow School Site Residential Development</i>								
East/West Street: <i>Adams Avenue</i>				North/South Street: <i>Shorewood Circle</i>				
Intersection Orientation: <i>East-West</i>				Study Period (hrs): <i>0.25</i>				
Vehicle Volumes and Adjustments								
Major Street	Eastbound			Westbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume (veh/h)	10	1544	20	10	531	10		
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00		
Hourly Flow Rate, HFR (veh/h)	10	1544	20	10	531	10		
Percent Heavy Vehicles	0	--	--	0	--	--		
Median Type	Undivided							
RT Channelized			0			0		
Lanes	1	2	1	1	2	1		
Configuration	L	T	R	L	T	R		
Upstream Signal		0			0			
Minor Street	Northbound			Southbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume (veh/h)	0		31	20		20		
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00		
Hourly Flow Rate, HFR (veh/h)	0	0	31	20	0	20		
Percent Heavy Vehicles	0	0	0	0	0	0		
Percent Grade (%)	0			0				
Flared Approach		N			N			
Storage		0			0			
RT Channelized			0			0		
Lanes	0	0	0	0	0	0		
Configuration		LR			LR			
Delay, Queue Length, and Level of Service								
Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	L	L	LR			LR		
v (veh/h)	10	10	31			40		
C (m) (veh/h)	1038	428	347			175		
v/c	0.01	0.02	0.09			0.23		
95% queue length	0.03	0.07	0.29			0.85		
Control Delay (s/veh)	8.5	13.6	16.4			31.6		
LOS	A	B	C			D		
Approach Delay (s/veh)	--	--	16.4			31.6		
Approach LOS	--	--	C			D		

TWO-WAY STOP CONTROL SUMMARY								
General Information			Site Information					
Analyst	R Garland		Intersection	Adams Ave/Shorewood Cir				
Agency/Co.	Garland Associates		Jurisdiction	City of Huntington Beach				
Date Performed	5/14/2012		Analysis Year	2014 With Project				
Analysis Time Period	AM Peak Hour							
Project Description <i>Wardlow School Site Residential Development</i>								
East/West Street: <i>Adams Avenue</i>			North/South Street: <i>Shorewood Circle</i>					
Intersection Orientation: <i>East-West</i>			Study Period (hrs): <i>0.25</i>					
Vehicle Volumes and Adjustments								
Major Street	Eastbound			Westbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume (veh/h)	10	1547	20	10	532	10		
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00		
Hourly Flow Rate, HFR (veh/h)	10	1547	20	10	532	10		
Percent Heavy Vehicles	0	--	--	0	--	--		
Median Type	Undivided							
RT Channelized			0			0		
Lanes	1	2	1	1	2	1		
Configuration	L	T	R	L	T	R		
Upstream Signal		0			0			
Minor Street	Northbound			Southbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume (veh/h)	0		31	21		21		
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00		
Hourly Flow Rate, HFR (veh/h)	0	0	31	21	0	21		
Percent Heavy Vehicles	0	0	0	0	0	0		
Percent Grade (%)		0			0			
Flared Approach		N			N			
Storage		0			0			
RT Channelized			0			0		
Lanes	0	0	0	0	0	0		
Configuration		LR			LR			
Delay, Queue Length, and Level of Service								
Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	L	L	LR			LR		
v (veh/h)	10	10	31			42		
C (m) (veh/h)	1037	427	346			175		
v/c	0.01	0.02	0.09			0.24		
95% queue length	0.03	0.07	0.29			0.90		
Control Delay (s/veh)	8.5	13.6	16.4			31.9		
LOS	A	B	C			D		
Approach Delay (s/veh)	--	--	16.4			31.9		
Approach LOS	--	--	C			D		

TWO-WAY STOP CONTROL SUMMARY							
General Information				Site Information			
Analyst	R Garland			Intersection	Adams Ave/Shorewood Cir		
Agency/Co.	Garland Associates			Jurisdiction	City of Huntington Beach		
Date Performed	3/6/2009			Analysis Year	Existing		
Analysis Time Period	PM Peak Hour						
Project Description <i>Wardlow School Site Residential Development</i>							
East/West Street: <i>Adams Avenue</i>				North/South Street: <i>Shorewood Circle</i>			
Intersection Orientation: <i>East-West</i>				Study Period (hrs): <i>0.25</i>			
Vehicle Volumes and Adjustments							
Major Street	Eastbound			Westbound			
Movement	1	2	3	4	5	6	
	L	T	R	L	T	R	
Volume (veh/h)	10	1070	10	60	1840	30	
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	
Hourly Flow Rate, HFR (veh/h)	10	1070	10	60	1840	30	
Percent Heavy Vehicles	0	--	--	0	--	--	
Median Type	Undivided						
RT Channelized			0			0	
Lanes	1	2	1	1	2	1	
Configuration	L	T	R	L	T	R	
Upstream Signal		0			0		
Minor Street	Northbound			Southbound			
Movement	7	8	9	10	11	12	
	L	T	R	L	T	R	
Volume (veh/h)	0		10	0		10	
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	
Hourly Flow Rate, HFR (veh/h)	0	0	10	0	0	10	
Percent Heavy Vehicles	0	0	0	0	0	0	
Percent Grade (%)	0			0			
Flared Approach		N			N		
Storage		0			0		
RT Channelized			0			0	
Lanes	0	0	0	0	0	0	
Configuration		LR			LR		
Delay, Queue Length, and Level of Service							
Approach	Eastbound	Westbound	Northbound			Southbound	
Movement	1	4	7	8	9	10	11
Lane Configuration	L	L		LR			LR
v (veh/h)	10	60		10			10
C (m) (veh/h)	326	653		495			277
v/c	0.03	0.09		0.02			0.04
95% queue length	0.09	0.30		0.06			0.11
Control Delay (s/veh)	16.4	11.1		12.4			18.5
LOS	C	B		B			C
Approach Delay (s/veh)	--	--	12.4			18.5	
Approach LOS	--	--	B			C	

TWO-WAY STOP CONTROL SUMMARY							
General Information			Site Information				
Analyst	R Garland		Intersection	Adams Ave/Shorewood Cir			
Agency/Co.	Garland Associates		Jurisdiction	City of Huntington Beach			
Date Performed	2/3/2012		Analysis Year	Existing plus Project			
Analysis Time Period	PM Peak Hour						
Project Description <i>Wardlow School Site Residential Development</i>							
East/West Street: <i>Adams Avenue</i>			North/South Street: <i>Shorewood Circle</i>				
Intersection Orientation: <i>East-West</i>			Study Period (hrs): <i>0.25</i>				
Vehicle Volumes and Adjustments							
Major Street	Eastbound			Westbound			
Movement	1	2	3	4	5	6	
	L	T	R	L	T	R	
Volume (veh/h)	10	1072	10	60	1843	31	
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	
Hourly Flow Rate, HFR (veh/h)	10	1072	10	60	1843	31	
Percent Heavy Vehicles	0	--	--	0	--	--	
Median Type	Undivided						
RT Channelized			0			0	
Lanes	1	2	1	1	2	1	
Configuration	L	T	R	L	T	R	
Upstream Signal		0			0		
Minor Street	Northbound			Southbound			
Movement	7	8	9	10	11	12	
	L	T	R	L	T	R	
Volume (veh/h)	0		10	0		11	
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	
Hourly Flow Rate, HFR (veh/h)	0	0	10	0	0	11	
Percent Heavy Vehicles	0	0	0	0	0	0	
Percent Grade (%)	0			0			
Flared Approach		N			N		
Storage		0			0		
RT Channelized			0			0	
Lanes	0	0	0	0	0	0	
Configuration		LR			LR		
Delay, Queue Length, and Level of Service							
Approach	Eastbound	Westbound	Northbound			Southbound	
Movement	1	4	7	8	9	10	11
Lane Configuration	L	L	LR			LR	
v (veh/h)	10	60	10			11	
C (m) (veh/h)	325	652	494			276	
v/c	0.03	0.09	0.02			0.04	
95% queue length	0.10	0.30	0.06			0.12	
Control Delay (s/veh)	16.4	11.1	12.4			18.6	
LOS	C	B	B			C	
Approach Delay (s/veh)	--	--	12.4			18.6	
Approach LOS	--	--	B			C	

TWO-WAY STOP CONTROL SUMMARY							
General Information				Site Information			
Analyst	R Garland			Intersection	Adams Ave/Shorewood Cir		
Agency/Co.	Garland Associates			Jurisdiction	City of Huntington Beach		
Date Performed	5/14/2012			Analysis Year	2014 Without Project		
Analysis Time Period	PM Peak Hour						
Project Description <i>Wardlow School Site Residential Development</i>							
East/West Street: <i>Adams Avenue</i>				North/South Street: <i>Shorewood Circle</i>			
Intersection Orientation: <i>East-West</i>				Study Period (hrs): <i>0.25</i>			
Vehicle Volumes and Adjustments							
Major Street	Eastbound			Westbound			
Movement	1	2	3	4	5	6	
	L	T	R	L	T	R	
Volume (veh/h)	10	1108	10	61	1894	31	
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	
Hourly Flow Rate, HFR (veh/h)	10	1108	10	61	1894	31	
Percent Heavy Vehicles	0	--	--	0	--	--	
Median Type	Undivided						
RT Channelized			0			0	
Lanes	1	2	1	1	2	1	
Configuration	L	T	R	L	T	R	
Upstream Signal		0			0		
Minor Street	Northbound			Southbound			
Movement	7	8	9	10	11	12	
	L	T	R	L	T	R	
Volume (veh/h)	0		10	0		10	
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	
Hourly Flow Rate, HFR (veh/h)	0	0	10	0	0	10	
Percent Heavy Vehicles	0	0	0	0	0	0	
Percent Grade (%)	0			0			
Flared Approach		N			N		
Storage		0			0		
RT Channelized			0			0	
Lanes	0	0	0	0	0	0	
Configuration		LR			LR		
Delay, Queue Length, and Level of Service							
Approach	Eastbound	Westbound	Northbound			Southbound	
Movement	1	4	7	8	9	10	11
Lane Configuration	L	L	LR			LR	
v (veh/h)	10	61	10			10	
C (m) (veh/h)	311	632	481			266	
v/c	0.03	0.10	0.02			0.04	
95% queue length	0.10	0.32	0.06			0.12	
Control Delay (s/veh)	17.0	11.3	12.6			19.1	
LOS	C	B	B			C	
Approach Delay (s/veh)	--	--	12.6			19.1	
Approach LOS	--	--	B			C	

TWO-WAY STOP CONTROL SUMMARY								
General Information				Site Information				
Analyst	R Garland			Intersection	Adams Ave/Shorewood Cir			
Agency/Co.	Garland Associates			Jurisdiction	City of Huntington Beach			
Date Performed	5/14/2012			Analysis Year	2014 With Project			
Analysis Time Period	PM Peak Hour							
Project Description <i>Wardlow School Site Residential Development</i>								
East/West Street: <i>Adams Avenue</i>				North/South Street: <i>Shorewood Circle</i>				
Intersection Orientation: <i>East-West</i>				Study Period (hrs): <i>0.25</i>				
Vehicle Volumes and Adjustments								
Major Street	Eastbound			Westbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume (veh/h)	10	1110	10	61	1897	32		
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00		
Hourly Flow Rate, HFR (veh/h)	10	1110	10	61	1897	32		
Percent Heavy Vehicles	0	-	-	0	-	-		
Median Type	<i>Undivided</i>							
RT Channelized			0			0		
Lanes	1	2	1	1	2	1		
Configuration	L	T	R	L	T	R		
Upstream Signal		0			0			
Minor Street	Northbound			Southbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume (veh/h)	0		10	0		10		
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00		
Hourly Flow Rate, HFR (veh/h)	0	0	10	0	0	10		
Percent Heavy Vehicles	0	0	0	0	0	0		
Percent Grade (%)	0			0				
Flared Approach		N			N			
Storage		0			0			
RT Channelized			0			0		
Lanes	0	0	0	0	0	0		
Configuration		LR			LR			
Delay, Queue Length, and Level of Service								
Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	L	L	LR			LR		
v (veh/h)	10	61	10			10		
C (m) (veh/h)	310	631	480			265		
v/c	0.03	0.10	0.02			0.04		
95% queue length	0.10	0.32	0.06			0.12		
Control Delay (s/veh)	17.0	11.3	12.7			19.1		
LOS	C	B	B			C		
Approach Delay (s/veh)	--	--	12.7			19.1		
Approach LOS	--	--	B			C		

ATTACHMENT NO. 3.54

TWO-WAY STOP CONTROL SUMMARY								
General Information				Site Information				
Analyst	R Garland			Intersection	Magnolia St/Pioneer Drive			
Agency/Co.	Garland Associates			Jurisdiction	City of Huntington Beach			
Date Performed	3/6/2009			Analysis Year	Existing			
Analysis Time Period	AM Peak Hour							
Project Description <i>Wardlow School Site Residential Development</i>								
East/West Street: <i>Pioneer Drive</i>				North/South Street: <i>Magnolia Street</i>				
Intersection Orientation: <i>North-South</i>				Study Period (hrs): <i>0.25</i>				
Vehicle Volumes and Adjustments								
Major Street	Northbound			Southbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume (veh/h)		790	10	30	600			
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00		
Hourly Flow Rate, HFR (veh/h)	0	790	10	30	600	0		
Percent Heavy Vehicles	0	--	--	0	--	--		
Median Type	Undivided							
RT Channelized			0			0		
Lanes	0	2	0	1	2	0		
Configuration		T	TR	L	T			
Upstream Signal		0			0			
Minor Street	Eastbound			Westbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume (veh/h)				10		40		
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00		
Hourly Flow Rate, HFR (veh/h)	0	0	0	10	0	40		
Percent Heavy Vehicles	0	0	0	0	0	0		
Percent Grade (%)		0			0			
Flared Approach		N			N			
Storage		0			0			
RT Channelized			0			0		
Lanes	0	0	0	0	0	0		
Configuration					LR			
Delay, Queue Length, and Level of Service								
Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		L	LR					
v (veh/h)		30	50					
C (m) (veh/h)		832	417					
v/c		0.04	0.12					
95% queue length		0.11	0.41					
Control Delay (s/veh)		9.5	14.8					
LOS		A	B					
Approach Delay (s/veh)	--	--	14.8					
Approach LOS	--	--	B					

TWO-WAY STOP CONTROL SUMMARY								
General Information				Site Information				
Analyst	R Garland			Intersection	Magnolia St/Pioneer Drive			
Agency/Co.	Garland Associates			Jurisdiction	City of Huntington Beach			
Date Performed	2/3/2012			Analysis Year	Existing plus Project			
Analysis Time Period	AM Peak Hour							
Project Description <i>Wardlow School Site Residential Development</i>								
East/West Street: <i>Pioneer Drive</i>				North/South Street: <i>Magnolia Street</i>				
Intersection Orientation: <i>North-South</i>				Study Period (hrs): <i>0.25</i>				
Vehicle Volumes and Adjustments								
Major Street	Northbound			Southbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume (veh/h)		790	13	36	600			
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00		
Hourly Flow Rate, HFR (veh/h)	0	790	13	36	600	0		
Percent Heavy Vehicles	0	--	--	0	--	--		
Median Type	Undivided							
RT Channelized			0			0		
Lanes	0	2	0	1	2	0		
Configuration		T	TR	L	T			
Upstream Signal		0			0			
Minor Street	Eastbound			Westbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume (veh/h)				19		58		
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00		
Hourly Flow Rate, HFR (veh/h)	0	0	0	19	0	58		
Percent Heavy Vehicles	0	0	0	0	0	0		
Percent Grade (%)		0			0			
Flared Approach		N			N			
Storage		0			0			
RT Channelized			0			0		
Lanes	0	0	0	0	0	0		
Configuration					LR			
Delay, Queue Length, and Level of Service								
Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		L	LR					
v (veh/h)		36	77					
C (m) (veh/h)		830	383					
v/c		0.04	0.20					
95% queue length		0.14	0.74					
Control Delay (s/veh)		9.5	16.7					
LOS		A	C					
Approach Delay (s/veh)	--	--	16.7					
Approach LOS	--	--	C					

TWO-WAY STOP CONTROL SUMMARY							
General Information				Site Information			
Analyst	R Garland			Intersection	Magnolia St/Pioneer Drive		
Agency/Co.	Garland Associates			Jurisdiction	City of Huntington Beach		
Date Performed	2/3/2012			Analysis Year	2014 Without Project		
Analysis Time Period	AM Peak Hour						
Project Description <i>Wardlow School Site Residential Development</i>							
East/West Street: <i>Pioneer Drive</i>				North/South Street: <i>Magnolia Street</i>			
Intersection Orientation: <i>North-South</i>				Study Period (hrs): <i>0.25</i>			
Vehicle Volumes and Adjustments							
Major Street	Northbound			Southbound			
Movement	1	2	3	4	5	6	
	L	T	R	L	T	R	
Volume (veh/h)		806	10	31	612		
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	
Hourly Flow Rate, HFR (veh/h)	0	806	10	31	612	0	
Percent Heavy Vehicles	0	--	--	0	--	--	
Median Type	Undivided						
RT Channelized			0				0
Lanes	0	2	0	1	2	0	
Configuration		T	TR	L	T		
Upstream Signal		0			0		
Minor Street	Eastbound			Westbound			
Movement	7	8	9	10	11	12	
	L	T	R	L	T	R	
Volume (veh/h)				10		41	
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	
Hourly Flow Rate, HFR (veh/h)	0	0	0	10	0	41	
Percent Heavy Vehicles	0	0	0	0	0	0	
Percent Grade (%)		0			0		
Flared Approach		N			N		
Storage		0			0		
RT Channelized			0			0	
Lanes	0	0	0	0	0	0	
Configuration					LR		
Delay, Queue Length, and Level of Service							
Approach	Northbound	Southbound	Westbound			Eastbound	
Movement	1	4	7	8	9	10	11
Lane Configuration		L		LR			
v (veh/h)		31		51			
C (m) (veh/h)		820		410			
v/c		0.04		0.12			
95% queue length		0.12		0.42			
Control Delay (s/veh)		9.6		15.0			
LOS		A		C			
Approach Delay (s/veh)	--	--		15.0			
Approach LOS	--	--		C			

TWO-WAY STOP CONTROL SUMMARY							
General Information				Site Information			
Analyst	R Garland			Intersection	Magnolia St/Pioneer Drive		
Agency/Co.	Garland Associates			Jurisdiction	City of Huntington Beach		
Date Performed	2/3/2012			Analysis Year	2014 With Project		
Analysis Time Period	AM Peak Hour						
Project Description <i>Wardlow School Site Residential Development</i>							
East/West Street: <i>Pioneer Drive</i>				North/South Street: <i>Magnolia Street</i>			
Intersection Orientation: <i>North-South</i>				Study Period (hrs): <i>0.25</i>			
Vehicle Volumes and Adjustments							
Major Street	Northbound			Southbound			
Movement	1	2	3	4	5	6	
	L	T	R	L	T	R	
Volume (veh/h)		806	13	37	612		
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	
Hourly Flow Rate, HFR (veh/h)	0	806	13	37	612	0	
Percent Heavy Vehicles	0	--	--	0	--	--	
Median Type	Undivided						
RT Channelized			0				0
Lanes	0	2	0	1	2		0
Configuration		T	TR	L	T		
Upstream Signal		0			0		
Minor Street	Eastbound			Westbound			
Movement	7	8	9	10	11	12	
	L	T	R	L	T	R	
Volume (veh/h)				19		59	
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	
Hourly Flow Rate, HFR (veh/h)	0	0	0	19	0	59	
Percent Heavy Vehicles	0	0	0	0	0	0	
Percent Grade (%)		0			0		
Flared Approach		N			N		
Storage		0			0		
RT Channelized			0				0
Lanes	0	0	0	0	0	0	
Configuration					LR		
Delay, Queue Length, and Level of Service							
Approach	Northbound	Southbound	Westbound			Eastbound	
Movement	1	4	7	8	9	10	11 12
Lane Configuration		L		LR			
v (veh/h)		37		78			
C (m) (veh/h)		818		376			
v/c		0.05		0.21			
95% queue length		0.14		0.77			
Control Delay (s/veh)		9.6		17.1			
LOS		A		C			
Approach Delay (s/veh)	--	--		17.1			
Approach LOS	--	--		C			

TWO-WAY STOP CONTROL SUMMARY								
General Information				Site Information				
Analyst	R Garland			Intersection	Magnolia St/Pioneer Drive			
Agency/Co.	Garland Associates			Jurisdiction	City of Huntington Beach			
Date Performed	3/6/2009			Analysis Year	Existing			
Analysis Time Period	PM Peak Hour							
Project Description: <i>Wardlow School Site Residential Development</i>								
East/West Street: <i>Pioneer Drive</i>				North/South Street: <i>Magnolia Street</i>				
Intersection Orientation: <i>North-South</i>				Study Period (hrs): <i>0.25</i>				
Vehicle Volumes and Adjustments								
Major Street	Northbound			Southbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume (veh/h)		810	20	20	890			
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00		
Hourly Flow Rate, HFR (veh/h)	0	810	20	20	890	0		
Percent Heavy Vehicles	0	--	--	0	--	--		
Median Type	Undivided							
RT Channelized			0			0		
Lanes	0	2	0	1	2	0		
Configuration		T	TR	L	T			
Upstream Signal		0			0			
Minor Street	Eastbound			Westbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume (veh/h)				40		30		
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00		
Hourly Flow Rate, HFR (veh/h)	0	0	0	40	0	30		
Percent Heavy Vehicles	0	0	0	0	0	0		
Percent Grade (%)		0			0			
Flared Approach		N			N			
Storage		0			0			
RT Channelized			0			0		
Lanes	0	0	0	0	0	0		
Configuration					LR			
Delay, Queue Length, and Level of Service								
Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		L		LR				
v (veh/h)		20		70				
C (m) (veh/h)		811		221				
v/c		0.02		0.32				
95% queue length		0.08		1.30				
Control Delay (s/veh)		9.6		28.7				
LOS		A		D				
Approach Delay (s/veh)	--	--		28.7				
Approach LOS	--	--		D				

TWO-WAY STOP CONTROL SUMMARY								
General Information				Site Information				
Analyst	R Garland			Intersection	Magnolia St/Pioneer Drive			
Agency/Co.	Garland Associates			Jurisdiction	City of Huntington Beach			
Date Performed	5/14/2012			Analysis Year	Existing plus Project			
Analysis Time Period	PM Peak Hour							
Project Description: Wardlow School Site Residential Development								
East/West Street: Pioneer Drive				North/South Street: Magnolia Street				
Intersection Orientation: North-South				Study Period (hrs): 0.25				
Vehicle Volumes and Adjustments								
Major Street	Northbound			Southbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume (veh/h)		810	30	41	890			
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00		
Hourly Flow Rate, HFR (veh/h)	0	810	30	41	890	0		
Percent Heavy Vehicles	0	--	--	0	--	--		
Median Type	Undivided							
RT Channelized			0			0		
Lanes	0	2	0	1	2	0		
Configuration		T	TR	L	T			
Upstream Signal		0			0			
Minor Street	Eastbound			Westbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume (veh/h)				46		41		
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00		
Hourly Flow Rate, HFR (veh/h)	0	0	0	46	0	41		
Percent Heavy Vehicles	0	0	0	0	0	0		
Percent Grade (%)		0			0			
Flared Approach		N			N			
Storage		0			0			
RT Channelized			0			0		
Lanes	0	0	0	0	0	0		
Configuration					LR			
Delay, Queue Length, and Level of Service								
Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		L		LR				
v (veh/h)		41		87				
C (m) (veh/h)		804		215				
v/c		0.05		0.40				
95% queue length		0.16		1.83				
Control Delay (s/veh)		9.7		32.7				
LOS		A		D				
Approach Delay (s/veh)	--	--	32.7					
Approach LOS	--	--	D					

TWO-WAY STOP CONTROL SUMMARY							
General Information				Site Information			
Analyst	R Garland			Intersection	Magnolia St/Pioneer Drive		
Agency/Co.	Garland Associates			Jurisdiction	City of Huntington Beach		
Date Performed	2/3/2012			Analysis Year	2014 Without Project		
Analysis Time Period	PM Peak Hour						
Project Description <i>Wardlow School Site Residential Development</i>							
East/West Street: <i>Pioneer Drive</i>				North/South Street: <i>Magnolia Street</i>			
Intersection Orientation: <i>North-South</i>				Study Period (hrs): <i>0.25</i>			
Vehicle Volumes and Adjustments							
Major Street	Northbound			Southbound			
Movement	1	2	3	4	5	6	
	L	T	R	L	T	R	
Volume (veh/h)		826	20	20	908		
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	
Hourly Flow Rate, HFR (veh/h)	0	826	20	20	908	0	
Percent Heavy Vehicles	0	--	--	0	--	--	
Median Type	Undivided						
RT Channelized			0				0
Lanes	0	2	0	1	2		0
Configuration		T	TR	L	T		
Upstream Signal		0			0		
Minor Street	Eastbound			Westbound			
Movement	7	8	9	10	11	12	
	L	T	R	L	T	R	
Volume (veh/h)				41		31	
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	
Hourly Flow Rate, HFR (veh/h)	0	0	0	41	0	31	
Percent Heavy Vehicles	0	0	0	0	0	0	
Percent Grade (%)		0			0		
Flared Approach		N			N		
Storage		0			0		
RT Channelized			0				0
Lanes	0	0	0	0	0	0	
Configuration					LR		
Delay, Queue Length, and Level of Service							
Approach	Northbound	Southbound	Westbound			Eastbound	
Movement	1	4	7	8	9	10	11 12
Lane Configuration		L	LR				
v (veh/h)		20	72				
C (m) (veh/h)		800	214				
v/c		0.03	0.34				
95% queue length		0.08	1.41				
Control Delay (s/veh)		9.6	30.1				
LOS		A	D				
Approach Delay (s/veh)	--	--	30.1				
Approach LOS	--	--	D				

TWO-WAY STOP CONTROL SUMMARY								
General Information				Site Information				
Analyst	R Garland			Intersection	Magnolia St/Pioneer Drive			
Agency/Co.	Garland Associates			Jurisdiction	City of Huntington Beach			
Date Performed	5/14/2012			Analysis Year	2011 With Project			
Analysis Time Period	PM Peak Hour							
Project Description: Wardlow School Site Residential Development								
East/West Street: Pioneer Drive				North/South Street: Magnolia Street				
Intersection Orientation: North-South				Study Period (hrs): 0.25				
Vehicle Volumes and Adjustments								
Major Street	Northbound			Southbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume (veh/h)		826	30	41	908			
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00		
Hourly Flow Rate, HFR (veh/h)	0	826	30	41	908	0		
Percent Heavy Vehicles	0	--	--	0	--	--		
Median Type	Undivided							
RT Channelized			0			0		
Lanes	0	2	0	1	2	0		
Configuration		T	TR	L	T			
Upstream Signal		0			0			
Minor Street	Eastbound			Westbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume (veh/h)				47		43		
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00		
Hourly Flow Rate, HFR (veh/h)	0	0	0	47	0	43		
Percent Heavy Vehicles	0	0	0	0	0	0		
Percent Grade (%)		0			0			
Flared Approach		N			N			
Storage		0			0			
RT Channelized			0			0		
Lanes	0	0	0	0	0	0		
Configuration					LR			
Delay, Queue Length, and Level of Service								
Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		L		LR				
v (veh/h)		41		90				
C (m) (veh/h)		793		208				
v/c		0.05		0.43				
95% queue length		0.16		2.01				
Control Delay (s/veh)		9.8		34.9				
LOS		A		D				
Approach Delay (s/veh)	--	--		34.9				
Approach LOS	--	--		D				

TWO-WAY STOP CONTROL SUMMARY								
General Information				Site Information				
Analyst	R Garland			Intersection	Magnolia St/Pioneer Drive			
Agency/Co.	Garland Associates			Jurisdiction	City of Huntington Beach			
Date Performed	8/7/09			Analysis Year	Existing w Baseball			
Analysis Time Period	PM Peak Hour							
Project Description <i>Wardlow School Site Residential Development</i>								
East/West Street: <i>Pioneer Drive</i>				North/South Street: <i>Magnolia Street</i>				
Intersection Orientation: <i>North-South</i>				Study Period (hrs): <i>0.25</i>				
Vehicle Volumes and Adjustments								
Major Street	Northbound			Southbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume (veh/h)		840	40	60	870			
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00		
Hourly Flow Rate, HFR (veh/h)	0	840	40	60	870	0		
Percent Heavy Vehicles	0	--	--	0	--	--		
Median Type	Undivided							
RT Channelized			0			0		
Lanes	0	2	0	1	2	0		
Configuration		T	TR	L	T			
Upstream Signal		0			0			
Minor Street	Eastbound			Westbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume (veh/h)				28		50		
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00		
Hourly Flow Rate, HFR (veh/h)	0	0	0	28	0	50		
Percent Heavy Vehicles	0	0	0	0	0	0		
Percent Grade (%)		0			0			
Flared Approach		N			N			
Storage		0			0			
RT Channelized			0			0		
Lanes	0	0	0	0	0	0		
Configuration					LR			
Delay, Queue Length, and Level of Service								
Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		L	LR					
v (veh/h)		60	78					
C (m) (veh/h)		777	244					
v/c		0.08	0.32					
95% queue length		0.25	1.33					
Control Delay (s/veh)		10.0	26.5					
LOS		B	D					
Approach Delay (s/veh)	--	--	26.5					
Approach LOS	--	--	D					

ATTACHMENT NO. 3.63

TWO-WAY STOP CONTROL SUMMARY							
General Information				Site Information			
Analyst	R Garland			Intersection	Magnolia St/Pioneer Drive		
Agency/Co.	Garland Associates			Jurisdiction	City of Huntington Beach		
Date Performed	2/3/2012			Analysis Year	Existing w Baseball + Project		
Analysis Time Period	PM Peak Hour						
Project Description <i>Wardlow School Site Residential Development</i>							
East/West Street: <i>Pioneer Drive</i>				North/South Street: <i>Magnolia Street</i>			
Intersection Orientation: <i>North-South</i>				Study Period (hrs): <i>0.25</i>			
Vehicle Volumes and Adjustments							
Major Street	Northbound			Southbound			
Movement	1	2	3	4	5	6	
	L	T	R	L	T	R	
Volume (veh/h)		840	50	81	870		
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	
Hourly Flow Rate, HFR (veh/h)	0	840	50	81	870	0	
Percent Heavy Vehicles	0	-	-	0	-	-	
Median Type	Undivided						
RT Channelized			0			0	
Lanes	0	2	0	1	2	0	
Configuration		T	TR	L	T		
Upstream Signal		0			0		
Minor Street	Eastbound			Westbound			
Movement	7	8	9	10	11	12	
	L	T	R	L	T	R	
Volume (veh/h)				34		62	
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	
Hourly Flow Rate, HFR (veh/h)	0	0	0	34	0	62	
Percent Heavy Vehicles	0	0	0	0	0	0	
Percent Grade (%)	0			0			
Flared Approach		N			N		
Storage		0			0		
RT Channelized			0			0	
Lanes	0	0	0	0	0	0	
Configuration					LR		
Delay, Queue Length, and Level of Service							
Approach	Northbound	Southbound	Westbound			Eastbound	
Movement	1	4	7	8	9	10	11
Lane Configuration		L		LR			
v (veh/h)		81		96			
C (m) (veh/h)		770		228			
v/c		0.11		0.42			
95% queue length		0.35		1.95			
Control Delay (s/veh)		10.2		31.8			
LOS		B		D			
Approach Delay (s/veh)	-	-		31.8			
Approach LOS	-	-		D			

TWO-WAY STOP CONTROL SUMMARY								
General Information			Site Information					
Analyst	R Garland		Intersection	Magnolia St/Pioneer Drive				
Agency/Co.	Garland Associates		Jurisdiction	City of Huntington Beach				
Date Performed	2/3/2012		Analysis Year	2014 Wout Project w Baseball				
Analysis Time Period	PM Peak Hour							
Project Description <i>Wardlow School Site Residential Development</i>								
East/West Street: <i>Pioneer Drive</i>			North/South Street: <i>Magnolia Street</i>					
Intersection Orientation: <i>North-South</i>			Study Period (hrs): <i>0.25</i>					
Vehicle Volumes and Adjustments								
Major Street	Northbound			Southbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume (veh/h)		857	41	61	887			
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00		
Hourly Flow Rate, HFR (veh/h)	0	857	41	61	887	0		
Percent Heavy Vehicles	0	--	--	0	--	--		
Median Type	Undivided							
RT Channelized			0			0		
Lanes	0	2	0	1	2	0		
Configuration		T	TR	L	T			
Upstream Signal		0			0			
Minor Street	Eastbound			Westbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume (veh/h)				29		51		
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00		
Hourly Flow Rate, HFR (veh/h)	0	0	0	29	0	51		
Percent Heavy Vehicles	0	0	0	0	0	0		
Percent Grade (%)		0			0			
Flared Approach		N			N			
Storage		0			0			
RT Channelized			0			0		
Lanes	0	0	0	0	0	0		
Configuration					LR			
Delay, Queue Length, and Level of Service								
Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		L		LR				
v (veh/h)		61		80				
C (m) (veh/h)		765		233				
v/c		0.08		0.34				
95% queue length		0.26		1.46				
Control Delay (s/veh)		10.1		28.3				
LOS		B		D				
Approach Delay (s/veh)	--	--	28.3					
Approach LOS	--	--	D					

TWO-WAY STOP CONTROL SUMMARY							
General Information			Site Information				
Analyst	R Garland		Intersection	Magnolia St/Pioneer Drive			
Agency/Co.	Garland Associates		Jurisdiction	City of Huntington Beach			
Date Performed	2/3/2012		Analysis Year	2014 With Project w Baseball			
Analysis Time Period	PM Peak Hour						
Project Description <i>Wardlow School Site Residential Development</i>							
East/West Street: <i>Pioneer Drive</i>			North/South Street: <i>Magnolia Street</i>				
Intersection Orientation: <i>North-South</i>			Study Period (hrs): <i>0.25</i>				
Vehicle Volumes and Adjustments							
Major Street	Northbound			Southbound			
Movement	1	2	3	4	5	6	
	L	T	R	L	T	R	
Volume (veh/h)		857	51	82	887		
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	
Hourly Flow Rate, HFR (veh/h)	0	857	51	82	887	0	
Percent Heavy Vehicles	0	--	--	0	--	--	
Median Type	Undivided						
RT Channelized			0			0	
Lanes	0	2	0	1	2	0	
Configuration		T	TR	L	T		
Upstream Signal		0			0		
Minor Street	Eastbound			Westbound			
Movement	7	8	9	10	11	12	
	L	T	R	L	T	R	
Volume (veh/h)				35		63	
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	
Hourly Flow Rate, HFR (veh/h)	0	0	0	35	0	63	
Percent Heavy Vehicles	0	0	0	0	0	0	
Percent Grade (%)		0			0		
Flared Approach		N			N		
Storage		0			0		
RT Channelized			0			0	
Lanes	0	0	0	0	0	0	
Configuration					LR		
Delay, Queue Length, and Level of Service							
Approach	Northbound	Southbound	Westbound			Eastbound	
Movement	1	4	7	8	9	10	11
Lane Configuration		L		LR			
v (veh/h)		82		98			
C (m) (veh/h)		758		218			
v/c		0.11		0.45			
95% queue length		0.36		2.14			
Control Delay (s/veh)		10.3		34.3			
LOS		B		D			
Approach Delay (s/veh)	--	--	34.3				
Approach LOS	--	--	D				

TWO-WAY STOP CONTROL SUMMARY								
General Information				Site Information				
Analyst	R Garland			Intersection	Magnolia St/Pioneer Drive			
Agency/Co.	Garland Associates			Jurisdiction	City of Huntington Beach			
Date Performed	8/7/09			Analysis Year	Existing w Baseball			
Analysis Time Period	Saturday PM Peak Hour							
Project Description: <i>Wardlow School Site Residential Development</i>								
East/West Street: <i>Pioneer Drive</i>				North/South Street: <i>Magnolia Street</i>				
Intersection Orientation: <i>North-South</i>				Study Period (hrs): <i>0.25</i>				
Vehicle Volumes and Adjustments								
Major Street	Northbound			Southbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume (veh/h)		780	30	40	740			
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00		
Hourly Flow Rate, HFR (veh/h)	0	780	30	40	740	0		
Percent Heavy Vehicles	0	--	--	0	--	--		
Median Type	Undivided							
RT Channelized			0			0		
Lanes	0	2	0	1	2	0		
Configuration		T	TR	L	T			
Upstream Signal		0			0			
Minor Street	Eastbound			Westbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume (veh/h)				50		80		
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00		
Hourly Flow Rate, HFR (veh/h)	0	0	0	50	0	80		
Percent Heavy Vehicles	0	0	0	0	0	0		
Percent Grade (%)		0			0			
Flared Approach		N			N			
Storage		0			0			
RT Channelized			0			0		
Lanes	0	0	0	0	0	0		
Configuration					LR			
Delay, Queue Length, and Level of Service								
Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		L	LR					
v (veh/h)		40	130					
C (m) (veh/h)		825	293					
v/c		0.05	0.44					
95% queue length		0.15	2.16					
Control Delay (s/veh)		9.6	26.7					
LOS		A	D					
Approach Delay (s/veh)	--	--	26.7					
Approach LOS	--	--	D					

TWO-WAY STOP CONTROL SUMMARY							
General Information				Site Information			
Analyst	R Garland			Intersection	Magnolia St/Pioneer Drive		
Agency/Co.	Garland Associates			Jurisdiction	City of Huntington Beach		
Date Performed	2/3/2012			Analysis Year	Existing + Project w Baseball		
Analysis Time Period	Saturday PM Peak Hour						
Project Description <i>Wardlow School Site Residential Development</i>							
East/West Street: <i>Pioneer Drive</i>				North/South Street: <i>Magnolia Street</i>			
Intersection Orientation: <i>North-South</i>				Study Period (hrs): <i>0.25</i>			
Vehicle Volumes and Adjustments							
Major Street	Northbound			Southbound			
Movement	1	2	3	4	5	6	
	L	T	R	L	T	R	
Volume (veh/h)		780	40	61	740		
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	
Hourly Flow Rate, HFR (veh/h)	0	780	40	61	740	0	
Percent Heavy Vehicles	0	--		0	--	--	
Median Type	Undivided						
RT Channelized			0				0
Lanes	0	2	0	1	2		0
Configuration		T	TR	L	T		
Upstream Signal		0			0		
Minor Street	Eastbound			Westbound			
Movement	7	8	9	10	11	12	
	L	T	R	L	T	R	
Volume (veh/h)				56		92	
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	
Hourly Flow Rate, HFR (veh/h)	0	0	0	56	0	92	
Percent Heavy Vehicles	0	0	0	0	0	0	
Percent Grade (%)		0			0		
Flared Approach		N			N		
Storage		0			0		
RT Channelized			0				0
Lanes	0	0	0	0	0	0	
Configuration					LR		
Delay, Queue Length, and Level of Service							
Approach	Northbound	Southbound	Westbound			Eastbound	
Movement	1	4	7	8	9	10	11 12
Lane Configuration		L		LR			
v (veh/h)		61		148			
C (m) (veh/h)		818		274			
v/c		0.07		0.54			
95% queue length		0.24		2.97			
Control Delay (s/veh)		9.8		32.6			
LOS		A		D			
Approach Delay (s/veh)	--	--		32.6			
Approach LOS	--	--		D			

TWO-WAY STOP CONTROL SUMMARY								
General Information			Site Information					
Analyst	R Garland		Intersection	Magnolia St/Pioneer Drive				
Agency/Co.	Garland Associates		Jurisdiction	City of Huntington Beach				
Date Performed	2/3/2012		Analysis Year	2014 Wout Project w Baseball				
Analysis Time Period	Saturday PM Peak Hour							
Project Description <i>Wardlow School Site Residential Development</i>								
East/West Street: <i>Pioneer Drive</i>			North/South Street: <i>Magnolia Street</i>					
Intersection Orientation: <i>North-South</i>			Study Period (hrs): <i>0.25</i>					
Vehicle Volumes and Adjustments								
Major Street	Northbound			Southbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume (veh/h)		796	31	41	755			
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00		
Hourly Flow Rate, HFR (veh/h)	0	796	31	41	755	0		
Percent Heavy Vehicles	0	--	--	0	--	--		
Median Type	Undivided							
RT Channelized			0			0		
Lanes	0	2	0	1	2	0		
Configuration		T	TR	L	T			
Upstream Signal		0			0			
Minor Street	Eastbound			Westbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume (veh/h)				51		82		
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00		
Hourly Flow Rate, HFR (veh/h)	0	0	0	51	0	82		
Percent Heavy Vehicles	0	0	0	0	0	0		
Percent Grade (%)	0			0				
Flared Approach		N			N			
Storage		0			0			
RT Channelized			0			0		
Lanes	0	0	0	0	0	0		
Configuration				LR				
Delay, Queue Length, and Level of Service								
Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		L	LR					
v (veh/h)		41	133					
C (m) (veh/h)		813	283					
v/c		0.05	0.47					
95% queue length		0.16	2.36					
Control Delay (s/veh)		9.7	28.5					
LOS		A	D					
Approach Delay (s/veh)	--	--	28.5					
Approach LOS	--	--	D					

ATTACHMENT NO. 3.69

TWO-WAY STOP CONTROL SUMMARY							
General Information				Site Information			
Analyst	R Garland			Intersection	Magnolia St/Pioneer Drive		
Agency/Co.	Garland Associates			Jurisdiction	City of Huntington Beach		
Date Performed	2/3/2012			Analysis Year	2014 W Project w Baseball		
Analysis Time Period	Saturday PM Peak Hour						
Project Description <i>Wardlow School Site Residential Development</i>							
East/West Street: <i>Pioneer Drive</i>				North/South Street: <i>Magnolia Street</i>			
Intersection Orientation: <i>North-South</i>				Study Period (hrs): <i>0.25</i>			
Vehicle Volumes and Adjustments							
Major Street	Northbound			Southbound			
Movement	1	2	3	4	5	6	
	L	T	R	L	T	R	
Volume (veh/h)		796	41	62	755		
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	
Hourly Flow Rate, HFR (veh/h)	0	796	41	62	755	0	
Percent Heavy Vehicles	0	--	--	0	--	--	
Median Type	Undivided						
RT Channelized			0			0	
Lanes	0	2	0	1	2	0	
Configuration		T	TR	L	T		
Upstream Signal		0			0		
Minor Street	Eastbound			Westbound			
Movement	7	8	9	10	11	12	
	L	T	R	L	T	R	
Volume (veh/h)				57		94	
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	
Hourly Flow Rate, HFR (veh/h)	0	0	0	57	0	94	
Percent Heavy Vehicles	0	0	0	0	0	0	
Percent Grade (%)	0			0			
Flared Approach		N			N		
Storage		0			0		
RT Channelized			0			0	
Lanes	0	0	0	0	0	0	
Configuration					LR		
Delay, Queue Length, and Level of Service							
Approach	Northbound	Southbound	Westbound			Eastbound	
Movement	1	4	7	8	9	10	11
Lane Configuration		L		LR			
v (veh/h)		62		151			
C (m) (veh/h)		806		266			
v/c		0.08		0.57			
95% queue length		0.25		3.22			
Control Delay (s/veh)		9.8		34.9			
LOS		A		D			
Approach Delay (s/veh)	--	--		34.9			
Approach LOS	--	--		D			

ATTACHMENT NO. 3.70

77. Newland St & Garfield Ave

2030 General Plan						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1700	180	.11*	190	.11
NBT	2	3400	560	.16	760	.22*
NBR	d	1700	150	.09	90	.05
SBL	1	1700	90	.05	100	.06*
SBT	2	3400	550	.16*	510	.15
SBR	d	1700	90	.05	110	.06
EBL	1	1700	60	.04	80	.05
EBT	2	3400	740	.22*	800	.24*
EBR	d	1700	200	.12	120	.07
WBL	1	1700	50	.03*	110	.06*
WBT	2	3400	410	.12	700	.21
WBR	d	1700	110	.06	130	.08
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .57 .63

2030 Beach/Edinger Specific Plan						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1700	170	.10*	210	.12
NBT	2	3400	530	.16	720	.21*
NBR	d	1700	190	.11	80	.05
SBL	1	1700	90	.05	110	.06*
SBT	2	3400	530	.16*	460	.14
SBR	d	1700	100	.06	110	.06
EBL	1	1700	60	.04	70	.04
EBT	2	3400	760	.22*	710	.21*
EBR	d	1700	220	.13	120	.07
WBL	1	1700	40	.02*	140	.08*
WBT	2	3400	350	.10	680	.20
WBR	d	1700	100	.06	150	.09
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .55 .61

78. Magnolia St & Garfield Ave

2030 General Plan						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1700	90	.05	170	.10*
NBT	2	3400	940	.28*	820	.24
NBR	d	1700	180	.11	170	.10
SBL	1	1700	140	.08*	110	.06
SBT	2	3400	600	.18	880	.26*
SBR	1	1700	60	.04	170	.10
EBL	1	1700	60	.04	300	.18*
EBT	2	3400	770	.23*	490	.14
EBR	d	1700	110	.06	110	.06
WBL	1	1700	130	.08*	290	.17
WBT	2	3400	340	.10	710	.21*
WBR	d	1700	80	.05	120	.07
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .72 .80

2030 Beach/Edinger Specific Plan						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1700	80 + 1	.05	170	.10*
NBT	2	3400	940	.28*	830	.24
NBR	d	1700	190	.11	160	.09
SBL	1	1700	130	.08*	110	.06
SBT	2	3400	600	.18	880	.26*
SBR	1	1700	40	.02	170	.10
EBL	1	1700	50	.03	270	.16*
EBT	2	3400	830	.24*	450	.13
EBR	d	1700	120	.07	110	.06
WBL	1	1700	140	.08*	270	.16
WBT	2	3400	310	.09	740	.22*
WBR	d	1700	90	.05	110	.06
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .73 .79

Project Traffic → .73  
 2030 Without Project → .72  
 2030 With Project → .79

88. Newland St & Yorktown Ave

2030 General Plan						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1700	90	.05	90	.05
NBT	2	3400	500	.15*	780	.23*
NBR	d	1700	140	.08	40	.02
SBL	1	1700	230	.14*	100	.06*
SBT	2	3400	640	.19	670	.20
SBR	d	1700	100	.06	70	.04
EBL	1	1700	90	.05*	160	.09*
EBT	2	3400	740	.22	660	.19
EBR	d	1700	100	.06	120	.07
WBL	1	1700	60	.04	80	.05
WBT	1	1700	610	.36*	720	.42*
WBR	1	1700	120	.07	180	.11
Clearance Interval					.05*	.05*

TOTAL CAPACITY UTILIZATION .75 .85

2030 Beach/Edinger Specific Plan						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1700	90	.05	90	.05
NBT	2	3400	500	.15*	790	.23*
NBR	d	1700	110	.06	40	.02
SBL	1	1700	220	.13*	100	.06*
SBT	2	3400	660	.19	650	.19
SBR	d	1700	70	.04	70	.04
EBL	1	1700	70	.04*	130	.08*
EBT	2	3400	780	.23	620	.18
EBR	d	1700	100	.06	120	.07
WBL	1	1700	60	.04	80	.05
WBT	1	1700	560	.33*	740	.44*
WBR	1	1700	120	.07	170	.10
Clearance Interval					.05*	.05*

TOTAL CAPACITY UTILIZATION .70 .70 .86

89. Magnolia St & Yorktown Ave

2030 General Plan						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1700	180	.11*	90	.05*
NBT	2	3400	690	.20	850	.25
NBR	d	1700	160	.09	70	.04
SBL	1	1700	120	.07	80	.05
SBT	2	3400	570	.17*	960	.28*
SBR	d	1700	160	.09	100	.06
EBL	1	1700	320	.19	90	.05*
EBT	2	3400	730	.21*	650	.19
EBR	d	1700	80	.05	90	.05
WBL	1	1700	170	.10*	90	.05
WBT	2	3400	390	.11	750	.22*
WBR	d	1700	60	.04	70	.04
Clearance Interval					.05*	.05*

TOTAL CAPACITY UTILIZATION .64 .65

2030 Beach/Edinger Specific Plan						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1700	180	.11*	90	.05*
NBT	2	3400	680	.20	850	.25
NBR	d	1700	160	.09	70	.04
SBL	1	1700	120	.07	90	.05
SBT	2	3400	580	.17*	940	.28*
SBR	d	1700	160	.09	110	.06
EBL	1	1700	310	.18	80	.05*
EBT	2	3400	740	.22*	620	.18
EBR	d	1700	90	.05	90	.05
WBL	1	1700	170	.10*	80	.05
WBT	2	3400	360	.11	760	.22*
WBR	d	1700	60	.04	80	.05
Clearance Interval					.05*	.05*

TOTAL CAPACITY UTILIZATION .65 .65 .65

90. Bushard St & Yorktown Ave

2030 General Plan						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1700	110	.06	260	.15*
NBT	2	3400	740	.22*	710	.21
NBR	d	1700	180	.11	50	.03
SBL	1	1700	120	.07*	40	.02
SBT	2	3400	550	.16	580	.17*
SBR	d	1700	80	.05	140	.08
EBL	1	1700	90	.05	150	.09
EBT	2	3400	860	.25*	500	.15*
EBR	d	1700	170	.10	130	.08
WBL	1	1700	60	.04*	220	.13*
WBT	2	3400	480	.14	580	.17
WBR	d	1700	50	.03	70	.04
Clearance Interval				.05*	.05*	

TOTAL CAPACITY UTILIZATION .63 .65

2030 Beach/Edinger Specific Plan						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1700	100	.06	250	.15*
NBT	2	3400	750	.22*	740	.22
NBR	d	1700	190	.11	50	.03
SBL	1	1700	120	.07*	50	.03
SBT	2	3400	560	.16	580	.17*
SBR	d	1700	80	.05	120	.07
EBL	1	1700	100	.06	140	.08
EBT	2	3400	870	.26*	500	.15*
EBR	d	1700	170	.10	140	.08
WBL	1	1700	60	.04*	210	.12*
WBT	2	3400	470	.14	610	.18
WBR	d	1700	50	.03	70	.04
Clearance Interval				.05*	.05*	

TOTAL CAPACITY UTILIZATION .64 .64 .64

91. Brookhurst St & Yorktown Ave

2030 General Plan						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1700	70	.04	150	.09
NBT	3	5100	1380	.27*	1730	.34*
NBR	d	1700	80	.05	110	.06
SBL	1	1700	50	.03*	90	.05*
SBT	3	5100	950	.19	1390	.27
SBR	d	1700	190	.11	420	.25
EBL	1	1700	260	.15*	220	.13*
EBT	2	3400	480	.14	380	.11
EBR	d	1700	190	.11	160	.09
WBL	1	1700	100	.06	210	.12
WBT	2	3400	260	.08*	390	.11*
WBR	d	1700	70	.04	50	.03
Clearance Interval				.05*	.05*	

TOTAL CAPACITY UTILIZATION .58 .68

2030 Beach/Edinger Specific Plan						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1700	70	.04	150	.09
NBT	3	5100	1390	.27*	1720	.34*
NBR	d	1700	80	.05	110	.06
SBL	1	1700	50	.03*	80	.05*
SBT	3	5100	930	.18	1400	.27
SBR	d	1700	190	.11	440	.26
EBL	1	1700	260	.15*	210	.12*
EBT	2	3400	490	.14	380	.11
EBR	d	1700	180	.11	170	.10
WBL	1	1700	100	.06	200	.12
WBT	2	3400	250	.07*	390	.11*
WBR	d	1700	70	.04	40	.02
Clearance Interval				.05*	.05*	

TOTAL CAPACITY UTILIZATION .57 .67

94. Beach Blvd & Adams Ave

2030 General Plan						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1700	90	.05	270	.16*
NBT	3	5100	820	.24*	1100	.25
NBR	0	0	440	.26	200	
SBL	2	3400	290	.09*	360	.11
SBT	3	5100	970	.20	1200	.27*
SBR	0	0	70		190	
EBL	1	1700	250	.15*	150	.09*
EBT	3	5100	1150	.24	760	.16
EBR	0	0	50		70	
WBL	1	1700	80	.05	320	.19
WBT	2	3400	590	.17*	1020	.30*
WBR	1	1700	350	.21	470	.28
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .70 .87

2030 Beach/Edinger Specific Plan						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1700	80	.05	280	.16*
NBT	3	5100	760	.22*	1100	.25
NBR	0	0	400	.24	200	
SBL	2	3400	330	.10*	360	.11
SBT	3	5100	1000	.21	1160	.26*
SBR	0	0	80		180	
EBL	1	1700	260	.15*	160	.09*
EBT	3	5100	1130	.23	730	.15
EBR	0	0	50		60	
WBL	1	1700	80	.05	310	.18
WBT	2	3400	570	.17*	970	.29*
WBR	1	1700	310	.18	510	.30
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .69 .85

95. Newland St & Adams Ave

2030 General Plan						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1700	150	.09*	90	.05
NBT	2	3400	510	.15	610	.18*
NBR	d	1700	170	.10	100	.06
SBL	1	1700	170	.10	160	.09*
SBT	2	3400	600	.18*	590	.17
SBR	d	1700	50	.03	100	.06
EBL	1	1700	60	.04	90	.05*
EBT	3	5100	1790	.35*	1230	.24
EBR	d	1700	150	.09	110	.06
WBL	1	1700	40	.02*	120	.07
WBT	3	5100	830	.16	1870	.37*
WBR	d	1700	130	.08	280	.16
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .69 .74

2030 Beach/Edinger Specific Plan						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1700	140	.08*	80	.05
NBT	2	3400	500	.15	600	.18*
NBR	d	1700	170	.10	110	.06
SBL	1	1700	170	.10	160	.09*
SBT	2	3400	610	.18*	580	.17
SBR	d	1700	40	.02	100	.06
EBL	1	1700	70	.04	90	.05*
EBT	3	5100	1800	.35*	1150	.23
EBR	d	1700	140	.08	110	.06
WBL	1	1700	40	.02*	120	.07
WBT	3	5100	710	.14	1820	.36*
WBR	d	1700	90	.05	310	.18
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .68 .73

96. Magnolia St & Adams Ave

2030 General Plan						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1700	190	.11	190	.11
NBT	2	3400	730	.21*	680	.20*
NBR	d	1700	310	.18	130	.08
SBL	1	1700	250	.15*	280	.16*
SBT	2	3400	670	.20	700	.21
SBR	d	1700	60	.04	410	.24
EBL	1	1700	110	.06	130	.08
EBT	3	5100	1980	.39*	1210	.24*
EBR	d	1700	90	.05	120	.07
WBL	1	1700	120	.07*	310	.18*
WBT	3	5100	750	.15	1560	.31
WBR	d	1700	250	.15	370	.22
Clearance Interval				.05*	.05*	

TOTAL CAPACITY UTILIZATION .87 .83

2030 Beach/Edinger Specific Plan						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1700	180	.11	200	.12
NBT	2	3400	720	.21*	670	.20*
NBR	d	1700	320	.19	130	.08
SBL	1	1700	250	.15*	240	.14*
SBT	2	3400	660	.19	710	.21
SBR	d	1700	60	.04	390	.23
EBL	1	1700	110	.06	130	.08
EBT	3	5100	2010	.39*	1160	.23*
EBR	d	1700	90	.05	110	.06
WBL	1	1700	130	.08*	320	.19*
WBT	3	5100	630	.12	1570	.31
WBR	d	1700	240	.14	370	.22
Clearance Interval				.05*	.05*	

TOTAL CAPACITY UTILIZATION .88 .81

97. Bushard St & Adams Ave

2030 General Plan						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1700	110	.06	110	.06
NBT	2	3400	500	.15*	490	.14*
NBR	d	1700	140	.08	80	.05
SBL	1	1700	280	.16*	230	.14*
SBT	2	3400	510	.15	330	.10
SBR	d	1700	70	.04	90	.05
EBL	1	1700	130	.08	120	.07*
EBT	3	5100	1890	.37*	1070	.21
EBR	d	1700	140	.08	100	.06
WBL	1	1700	90	.05*	200	.12
WBT	3	5100	970	.19	2120	.42*
WBR	d	1700	80	.05	380	.22
Clearance Interval				.05*	.05*	

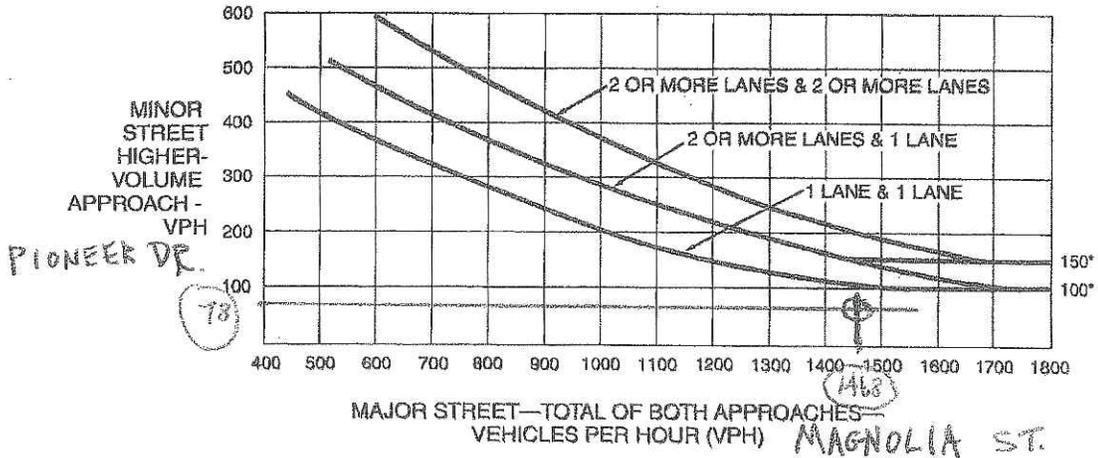
TOTAL CAPACITY UTILIZATION .78 .82

2030 Beach/Edinger Specific Plan						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1700	110	.06	110	.06
NBT	2	3400	480	.14*	490	.14*
NBR	d	1700	170	.10	60	.04
SBL	1	1700	290	.16*	230	.14*
SBT	2	3400	510	.15	320	.09
SBR	d	1700	70	.04	100	.06
EBL	1	1700	150	.09	120	.07*
EBT	3	5100	1900	.37*	1010	.20
EBR	d	1700	140	.08	100	.06
WBL	1	1700	90	.05*	190	.11
WBT	3	5100	860	.17	2140	.42*
WBR	d	1700	80	.05	390	.23
Clearance Interval				.05*	.05*	

TOTAL CAPACITY UTILIZATION .77 .82

AM

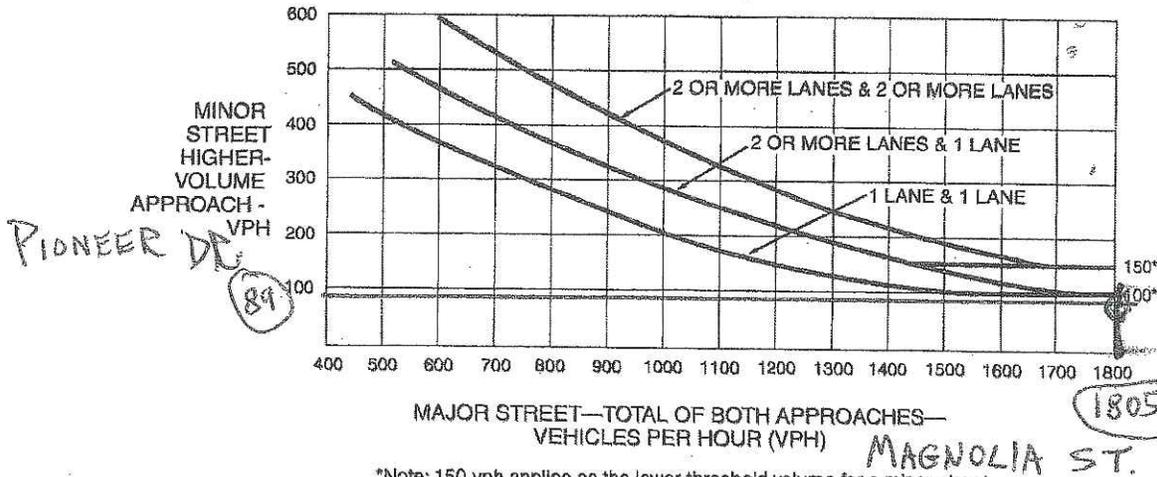
Figure 4C-3. Warrant 3, Peak Hour



\*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

PM

Figure 4C-3. Warrant 3, Peak Hour



\*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

**Attachment No. 4**  
**Project Description and Project Plans**

REVISED  
NARRATIVE  
05/15/2012

WARDLOW SCHOOL SITE  
(Wardlow Residential Subdivision)  
General plan Amendment (No. 2008-004)  
Zoning Map Amendment (No. 2008-004)  
Environmental Assessment (No. 2008-012)  
Tentative Tract Map (No. 17239)  
Conditional Use Permit (No. 2008-025)

Location: 9191 Pioneer Drive (Former Wardlow School Site)

Project Description: To subdivide the 8.3 acre site to accommodate 49 lots for new single family homes. The proposed lots feature varying lot sizes with 4,250 sq. ft. minimum (50'x85'). The lots backing up to the adjacent single family tract is proposed at 93' in depth to allow for an increased building rear setback. A proposed list of lot sizes is attached to this submittal.

All streets, landscaping, storm drains and sewers facilities will be privately maintained by the Homeowners Association. The streets will be sized consistent with City public street standards, including parkways and on-street public parking (36' curb to curb, with a 4' sidewalk and 6' parkway on each side).

All units will be designed and plotted to reflect the greatest sensitivity to surrounding developments. The units have been individually designed to create a more interesting streetscape. Each unit will be provided with a two car enclosed garage and two car driveway apron. All units will have a minimum yard area of 400 square feet.

All existing school buildings and site improvements are proposed to be demolished with the project.

The project is adjacent to the City's Wardlow Park. The project is proposing to dedicate an additional .83 acres of land and construct a new 80 space landscaped parking lot. Additional park improvements may be considered subject to further discussion and negotiations with the City.

Request: Ex. - GENERAL PLAN: P (RL)  
Public with an underlying designation of Residential Low Density  
Request – GENERAL PLAN AMENDMENT to RL – Residential  
Low Density (Remove the “P”)  
Ex. – ZONING: PS – Public-Semi Public  
REQUEST – Zone Change to: RL Residential Low Density with a  
PUD (Planned Unit Development) Standards Sec.210.12.  
The PUD overlay will be necessary to address the unique mix of  
public and private improvements and the variety of residential lot  
sizes.

Surrounding Uses: North-Single Family Residential  
East- County Flood Control Channel  
South- Single Family Residential  
West- City Neighborhood Park

Environmental Status: There are no significant environmental impacts associated with this project. The project site is not within a known hazardous waste and substance site.

The project will incorporate sustainable and green building practices to the maximum extent feasible. The proposed sustainable building practices will meet the California Green Building Code. A comprehensive Green Building Program has been developed for this project including:

- Building massing and orientation shall maximize south-facing vertical facades.
- Window orientation and opening size shall be partially determined by a desire to balance summer cooling and winter heating.
- Building and roof forms, shading devices and façade designs shall be oriented to direct airflow that facilitates natural building ventilation.
- Locally produced and recycled building materials shall be used whenever possible. Building materials shall be incorporated that obtain the maximum sustainability and achieve the best Green rating to the greatest extent feasible

#### Land Use

##### Compatibility:

The property is compatible with existing Single Family housing in the area. The proposed activity will not generate any unusual noise or traffic; or unusual demands on the City's infrastructure or public services. The proposed homes will be designed with greater rear yard setbacks and offset rear elevations to have a greater compatibility with adjacent residential. The roof designs and upper story window placement has also been proposed with consideration to the neighborhood. Overall the project has been designed for total compatibility with the neighborhood and the City's Design Guidelines for new single family developments



# FORMER WARDLOW SCHOOL SITE

## CITY OF HUNTINGTON BEACH

MAY 15th, 2012 SUBMITTAL  
 JULY 9th, 2012 RE-SUBMITTAL

### SHEET INDEX

COVER SHEET \*  
 TENTATIVE TRACT MAP \*

**ARCHITECTURE**

AJ FLOOR PLANS 1-3 FIRST FLOOR \*  
 AK FLOOR PLANS 1-3 SECOND FLOOR \*  
 AL STREET SCENE 1  
 AM STREET SCENE 2  
 AN STREET SCENE 3  
 AO ELEVATIONS PLAN 1A: SANTA BARBARA  
 AP ELEVATIONS PLAN 1B: COSTAL CALIFORNIA  
 AQ ELEVATIONS PLAN 1C: CALIFORNIA COTTAGE  
 AR ELEVATIONS PLAN 2A: SANTA BARBARA  
 AS ELEVATIONS PLAN 2B: COSTAL CALIFORNIA  
 AT ELEVATIONS PLAN 2C: CALIFORNIA COTTAGE  
 AU ELEVATIONS PLAN 3A: SANTA BARBARA  
 AV ELEVATIONS PLAN 3B: COSTAL CALIFORNIA  
 AW ELEVATIONS PLAN 3C: CALIFORNIA COTTAGE

**LANDSCAPE**

L1 CONCEPTUAL LANDSCAPE PLAN \*  
 L2 CONCEPTUAL PLANT PALETTE \*  
 L3 NEIGHBORHOOD WALL ELEVATIONS \*  
 L4 CONCEPTUAL WALL AND FENCE PLAN \*  
 L5 CONCEPTUAL WALL AND FENCE DETAILS \*

**CIVIL**

C1 TECHNICAL SITE PLAN \*  
 C2 PRELIMINARY GRADING PLAN \*  
 C3 PRELIMINARY WET UTILITY PLAN \*  
 C4 PRELIMINARY PARKING PLAN \*  
 C5 FINE MASTER PLAN \*

**SITE PLANNING**

SP1 PROPOSED BUILDING SETBACKS \*  
 SP2 ADJACENT PROPERTY WINDOW LOCATIONS \*  
 SP3 SITE EDGE - ADJACENT EXISTING HOMES \*

\* = REVISED SHEET FOR 07.09.12 SUBMITTAL

07.09.12



CS

FORMER WARDLOW SCHOOL SITE  
 HUNTINGTON BEACH, CALIFORNIA



Bassenian | Lagoni  
 ARCHITECTURE • PLANNING • INTERIORS

667.11017

Item	Required/Allowed	Provided (Interior Lot)	Provided (Frontier lots adjacent to existing homes)
Minimum Building Site	6,000 sq ft	4,152 sq ft	5,848 sq ft
Width (ft.)	40	50	50
Depth (ft.)	45	46A	N/A
Minimum setbacks			
Front (ft.)	15	15	15
Side (ft.)	2.5	2 (min.)	2 (min.)
Rear (ft.)	5	5	5
Minimum lot area	6,000 sq ft	10 (min.)	N/A
Minimum lot coverage	20%	2	2
Maximum height (ft.)	20	20	20
Maximum height (ft.)	20	20	20
Dwellings (ft.)	35	30'-2" max.	30'-2" max.
Necessary structures (ft.)	15	N/A	N/A
Minimum lot area	6,000 sq ft	4,152 sq ft	5,848 sq ft
Minimum lot coverage	20%	2	2
Minimum lot coverage	20%	2	2
Minimum lot coverage	20%	2	2









PLAN 1A  
SANTA BARBARA

PLAN 2B  
COASTAL CALIFORNIA

PLAN 3C  
CALIFORNIA COTTAGE

STREET SCENE I



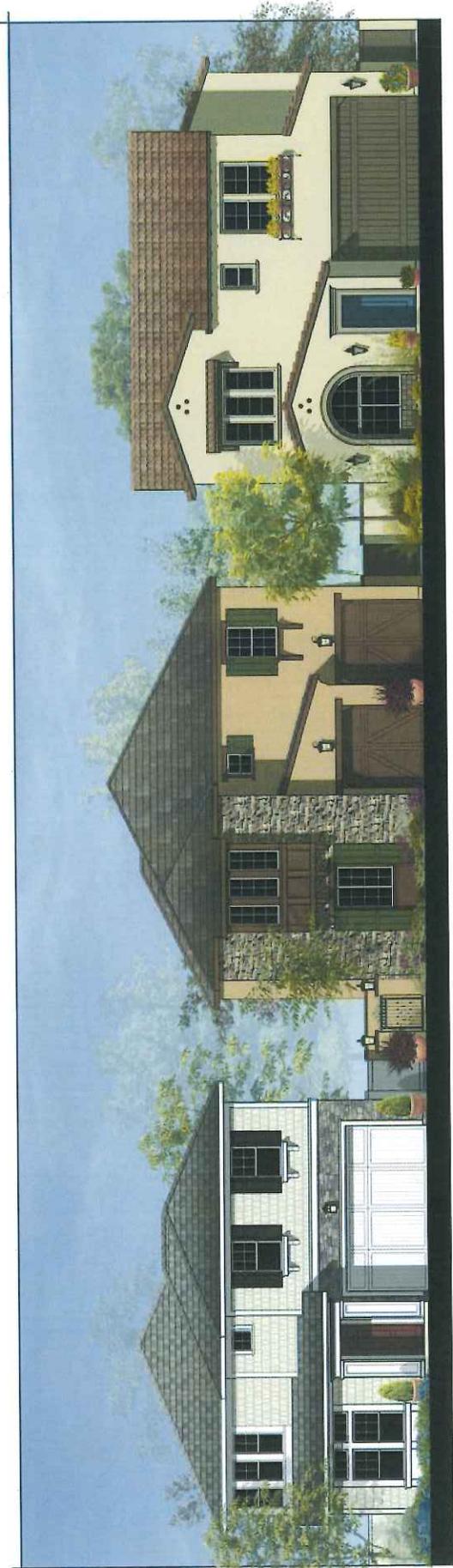
05.15.12

**Bassenian | Lagoni**  
ARCHITECTURE • PLANNING • INTERIORS  
667.12017

**TRU Pointe**  
COMMERCIAL REAL ESTATE  
10000 WARDLOW RD  
HUNTINGTON BEACH, CA 92648  
(714) 835-1100

FORMER WARDLOW SCHOOL SITE  
HUNTINGTON BEACH, CALIFORNIA

A.3



**PLAN 1B**  
COASTAL CALIFORNIA

**PLAN 2C**  
CALIFORNIA COTTAGE

**PLAN 3A**  
SANTA BARBARA

**STREET SCENE 2**



**Bassenian | Lagoni**  
ARCHITECTURE • PLANNING • INTERIORS  
667.120.17

**FORMER WARDLOW SCHOOL SITE**  
HUNTINGTON BEACH, CALIFORNIA

**A.4**

**TRU Pointe**  
TRUSTEES  
PROJECT COMMENCED  
JUNE 26  
BY THE STATE OF  
CALIFORNIA

05.15.12



PLAN 1C  
CALIFORNIA COTTAGE

PLAN 2A  
SANTA BARBARA

PLAN 3B  
COASTAL CALIFORNIA

STREET SCENE 3



05.15.12

**Bassenian | Lagoni**  
ARCHITECTURE • PLANNING • INTERIORS  
667.12017

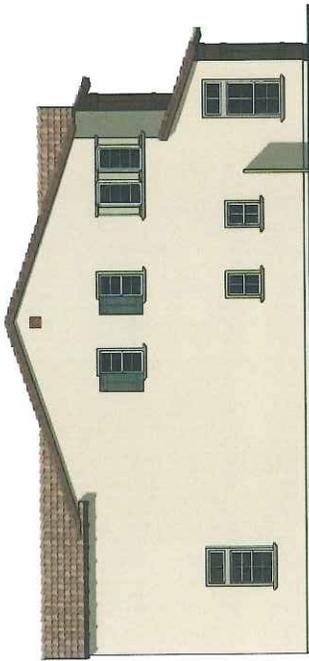
FORMER WARDLOW SCHOOL SITE  
HUNTINGTON BEACH, CALIFORNIA

**TRI Pointe**  
A.5  
HUNTINGTON BEACH  
SANTA BARBARA  
CALIFORNIA



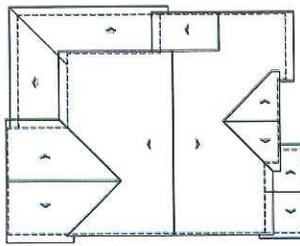
FRONT

**MATERIALS LEGEND**  
 SMOOTH STUCCO FINISH  
 STUCCO DETAILS  
 4x6 SHAPED RAFTER TAILS  
 WOOD BOX BAYS  
 CONCRETE 3" TILE ROOF

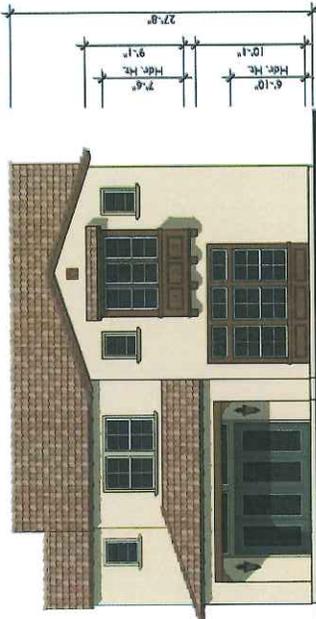


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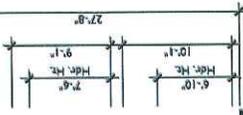
APPROXIMATE FENCE LOCATION



**ROOF PLAN**  
 1/8" = 4'-0" (CLING)  
 ALL DIMENSIONS IN FEET  
 BASED UP  
 FROM EXTERIOR CONCRETE 3" TILE



REAR



**ELEVATIONS  
 PLAN I A  
 SANTA BARBARA**

05.15.12

**TRI Pointe HOMES, LLC**  
 11555 PLYMOUTH RD  
 SANTA BARBARA, CA 93108  
 FOR PHOTOGRAPHY

**A.6**

**FORMER WARDLOW SCHOOL SITE  
 HUNTINGTON BEACH, CALIFORNIA**

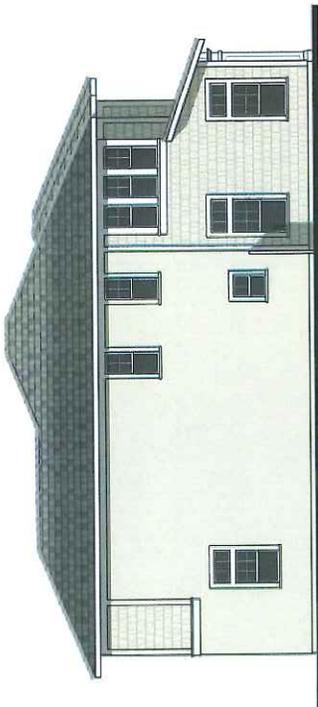


**Bassonian | Lagoni**  
 ARCHITECTURE • PLUMBING • INTERIORS  
 667.130.17



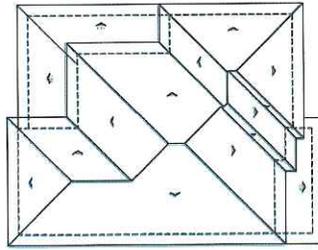
FRONT

**MATERIALS LEGEND**  
 SMOOTH STUCCO FINISH  
 CEMENTITIOUS SHINGLE SIDING  
 STONE VENEER  
 WOOD TRIM AT SIDING AND STONE  
 WOOD BOX BOARDS  
 FLAT CONCRETE TILE ROOF

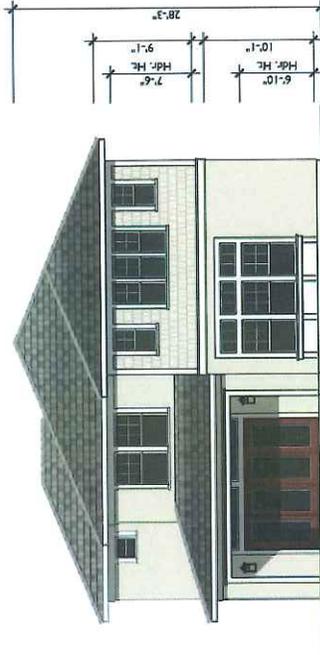


APPROPRIATE FENCE LOCATION

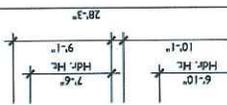
LEFT



**ROOF PLAN**  
 PITCH: 12/12 UNID.  
 RIDGE: 12'-0" UNID.  
 EAVE: 2'-0" UNID.  
 ROOF FINISH: FLAT CONCRETE TILE



REAR



**ELEVATIONS**  
**PLAN 1B**  
 COASTAL CALIFORNIA

05.15.12



A.7

**FORMER WARDLOW SCHOOL SITE**  
 HUNTINGTON BEACH, CALIFORNIA

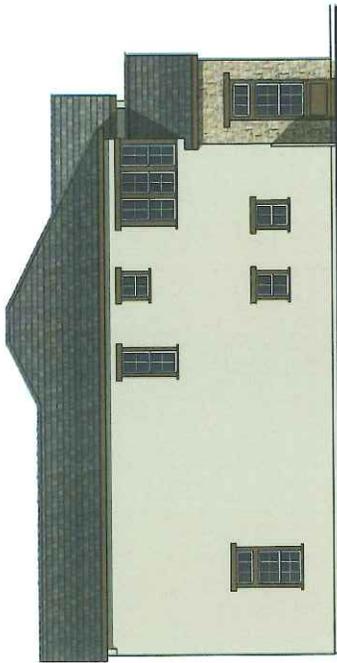


**Bassenian | Lagoni**  
 ARCHITECTURE • PLUMBING • INTERIORS  
 667.71017



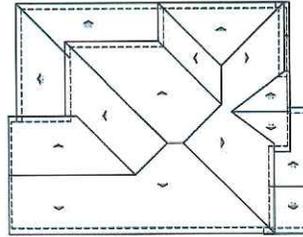
FRONT

**MATERIALS LEGEND**  
 SMOOTH STUCCO FINISH  
 STONE VENEER  
 DECORATIVE SHUTTERS  
 METAL SHUTTERS  
 FLAT CONCRETE TILE ROOF

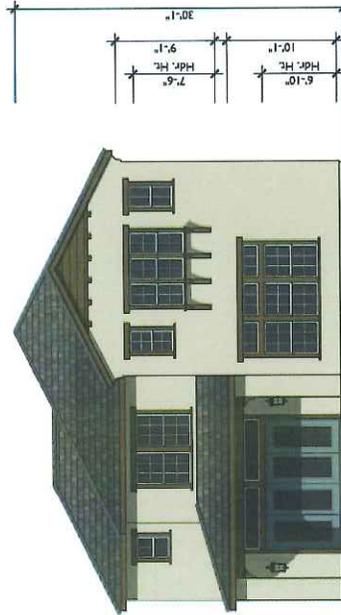


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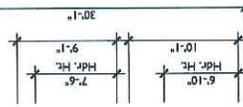
APPROXIMATE FENCE LOCATION



**ROOF PLAN**  
 1/8" = 1'-0"  
 DATE: 05.15.12  
 ROOF: TYPICAL FLAT CONCRETE TILE



REAR



**ELEVATIONS**  
**PLANIC**  
 CALIFORNIA COTTAGE

05.15.12

**TRI Pointe**  
 HOMES, LLC  
 100 HUNTINGTON BLVD  
 HUNTINGTON BEACH, CA 92648  
 949.400.1000

**A.8**  
**FORMER WARDLOW SCHOOL SITE**  
 HUNTINGTON BEACH, CALIFORNIA



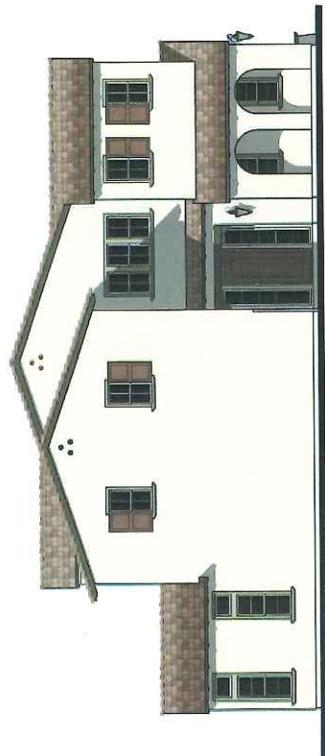
**Bassenian | Lagoni**  
 ARCHITECTURE • PLANNING • INTERIORS  
 667.120.17



FRONT

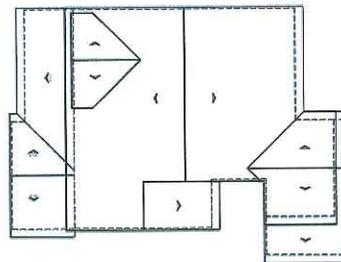
**MATERIALS LEGEND**

- SMOOTH STUCCO FINISH
- SURROUND AT ACCENT WINDOW
- 4X6 SHAPED RAFTER TAILS
- WROUGHT IRON RAILING & POT SHELF
- ACCENT SHUTTERS
- CONCRETE 5" TILE ROOF

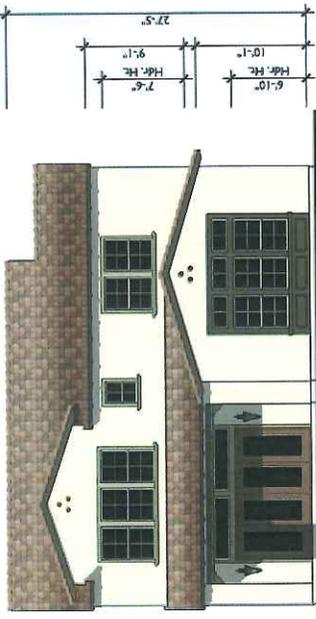


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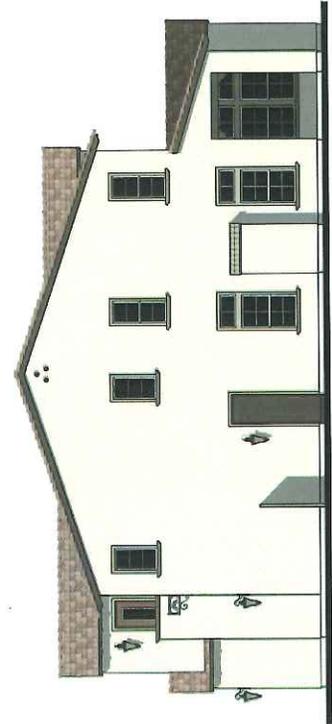
APPROXIMATE FENCE LOCATION



**ROOF PLAN**  
 PITCH 12/12  
 PITCH 6/12  
 PITCH 12/12  
 ROOF MATERIAL: CONCRETE 5" TILE



REAR



RIGHT

APPROXIMATE FENCE LOCATION

**ELEVATIONS  
 PLAN 2A  
 SANTA BARBARA**

05.15.12



**Bassenian | Lagoni**  
 ARCHITECTURE • PLANNING • INTERIORS  
 667.120.17

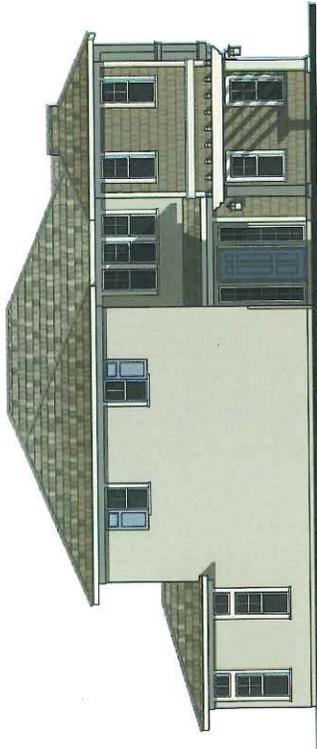
**A.9**  
**TRI Pointe**  
 HOMES  
 1000 JARDIN BLVD  
 SANTA BARBARA, CA 93101  
 TEL: 805.964.1000

**FORMER WARDLOW SCHOOL SITE  
 HUNTINGTON BEACH, CALIFORNIA**



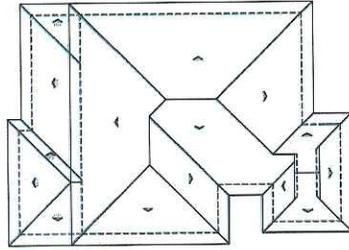
FRONT

**MATERIALS LEGEND**  
 SMOOTH STUCCO FINISH  
 CEMENTITIOUS SHINGLE SIDING  
 STONE VENEER  
 WOOD TRIM AT SIDING AND STONE  
 VENEER  
 FLAT CONCRETE TILE ROOF



APPROPRIATE FENCE LOCATION

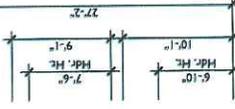
LEFT



**ROOF PLAN**  
 PITCH 8/12  
 PITCH 12/12  
 GABLE 3/12  
 ROOF MATERIAL 1/4" CONCRETE TILE



REAR



**ELEVATIONS**  
**PLAN 2B**  
 COASTAL CALIFORNIA

05.15.12

**A.10 TRI Pointe HOMES, LLC**  
 10000 WARDLOW ROAD  
 HUNTINGTON BEACH, CA 92646  
 THE PROPERTY

**FORMER WARDLOW SCHOOL SITE**  
 HUNTINGTON BEACH, CALIFORNIA

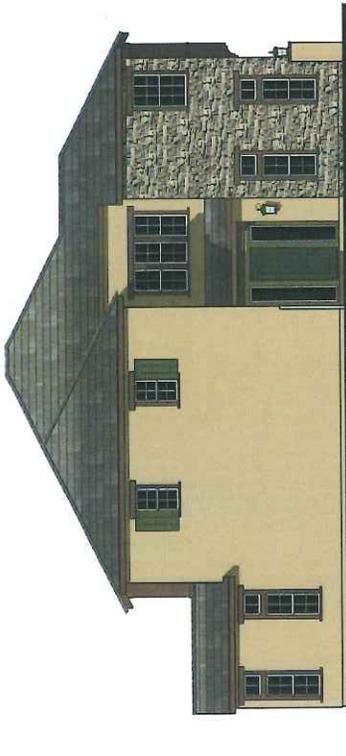


**Bassenian | Lagoni**  
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 687.12017



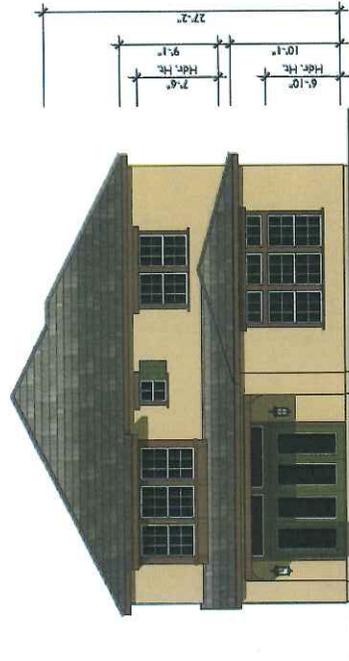
FRONT

- MATERIALS LEGEND**
- SMOOTH STUCCO FINISH
  - STONE VENEER
  - WOOD BOX BAY
  - ACCENT SHUTTERS
  - ACCENT TRIM
  - FLY CONCRETE TILE ROOF

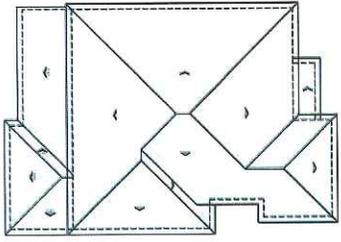
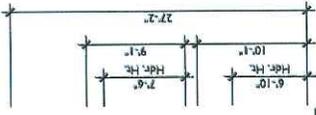


APPROXIMATE FENCE LOCATION

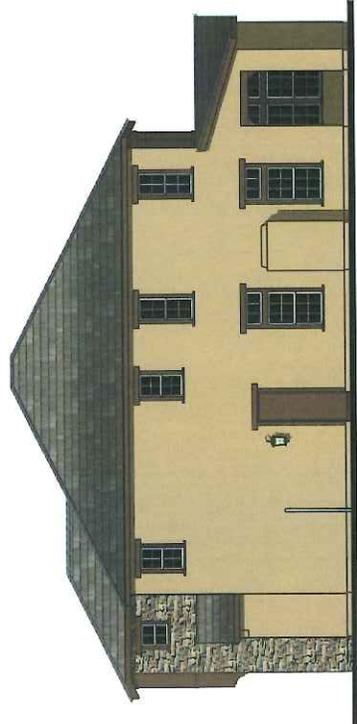
LEFT



REAR



**ROOF PLAN**  
 PITCH: 12/12  
 ROOF MATERIAL: FLAT CONCRETE TILE



APPROXIMATE FENCE LOCATION

RIGHT

**ELEVATIONS  
 PLAN 2C  
 CALIFORNIA COTTAGE**

05.15.12



**FORMER WARDLOW SCHOOL SITE  
 HUNTINGTON BEACH, CALIFORNIA**

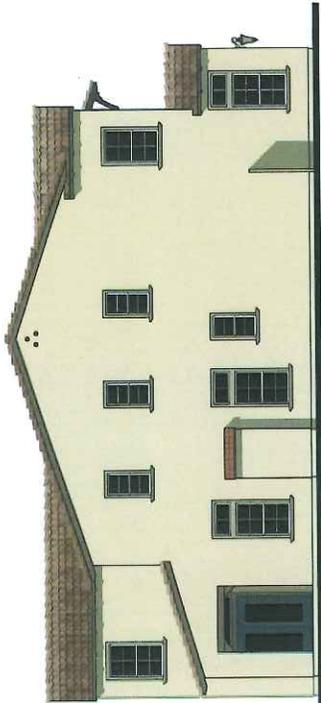


**Bassenian | Lagani**  
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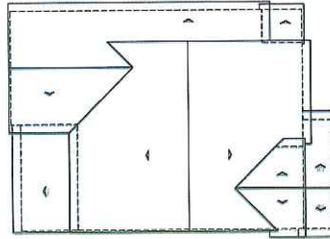
FRONT

**MATERIALS LEGEND**  
 SMOOTH STUCCO FINISH  
 SUBROOFING AT ACCENT WINDOW  
 EXPOSED RAFTER TAILS  
 WROUGHT IRON RAILING & POT SHELF  
 ACCENT SHUTTERS  
 CONCRETE S TILE ROOF

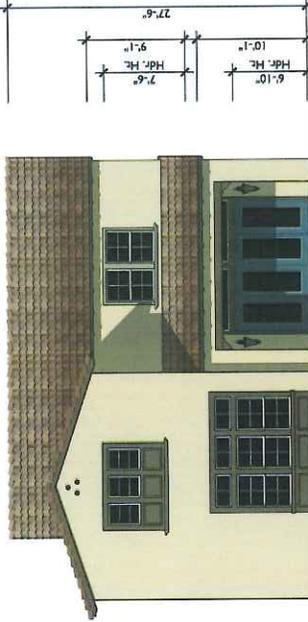


LEFT

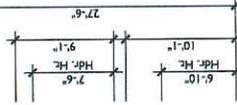
APPROXIMATE FENCE LOCATION



**ROOF PLAN**  
 PITCH 12/12 HAND  
 RAISE 1" PER FOOT  
 ROOF MATERIAL: CONCRETE & TILE



REAR



**ELEVATIONS  
 PLAN 3A  
 SANTA BARBARA**

05.15.12

**A.12** **TRI Pointe**  
 HOMES, LLC  
 11000 JARDIN BLVD  
 IRVINE, CA 92618  
 (949) 261-1100

**FORMER WARDLOW SCHOOL SITE  
 HUNTINGTON BEACH, CALIFORNIA**

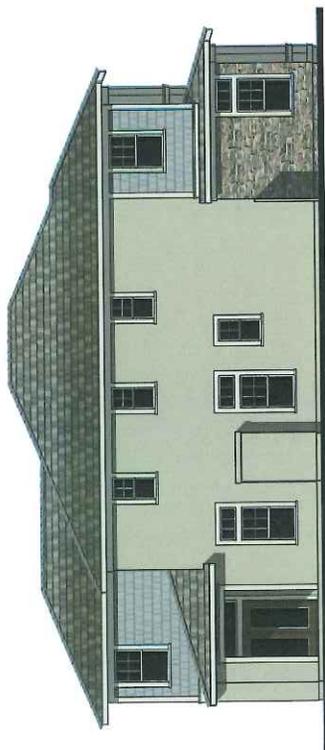


**Bassenian | Lagoni**  
 ARCHITECTURE • PLANNING • INTERIORS  
 667.120.17



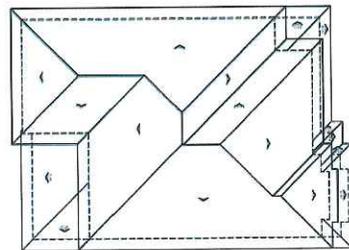
FRONT

**MATERIALS LEGEND**  
 SMOOTH STUCCO FINISH  
 CEMENTITIOUS SHINGLE SIDING  
 STONE VENEER  
 WOOD TRIM AT SIDING AND STONE  
 WOOD BOX BAY  
 FLAT CONCRETE TILE ROOF



LEFT

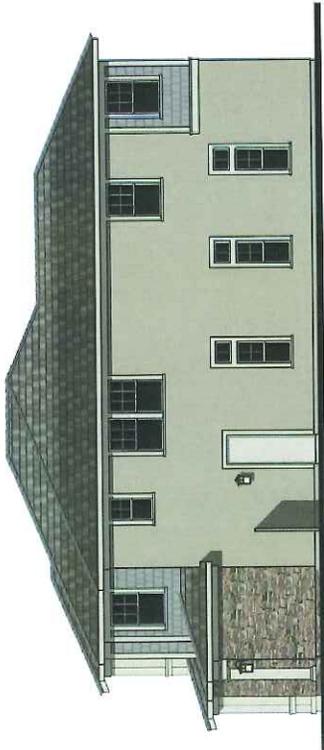
APPROPRIATE FENCE LOCATION



**ROOF PLAN**  
 PITCH: 8:12 MAIN  
 PITCH: 6:12 GABLE  
 ROOF MATERIAL: FLAT CONCRETE TILE



REAR



RIGHT

APPROPRIATE FENCE LOCATION

**ELEVATIONS**  
**PLAN 3B**  
 COASTAL CALIFORNIA

05.15.12



SCALE: 1/4" = 1'-0"

**Bassenian | Lagoni**  
 ARCHITECTURE • PLANNING • INTERIORS  
 687-12017

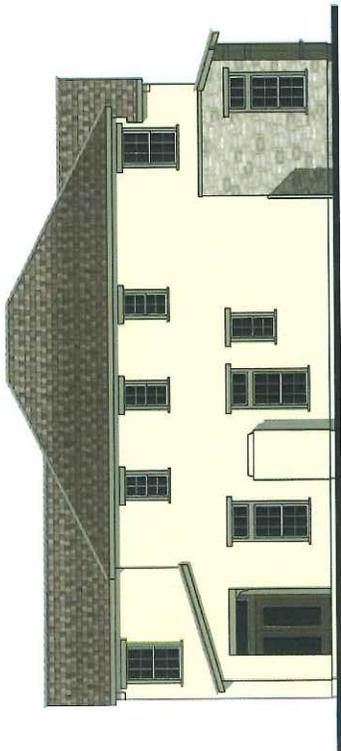
**A.13 TRI Pointe HOMECOLLE**  
 PROJECT NO. 12017  
 1000 CA ST  
 COSTA MESA, CA 92626

**FORMER WARDLOW SCHOOL SITE**  
 HUNTINGTON BEACH, CALIFORNIA



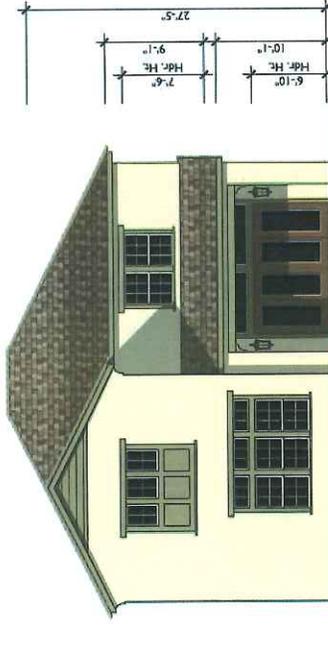
FRONT

**MATERIALS LEGEND**  
 SMOOTH STUCCO FINISH  
 STONE VENEER  
 WOOD BOX BAY  
 DECORATIVE WOOD POT SHELF  
 FLAT CONCRETE TILE ROOF

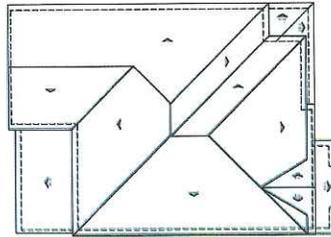
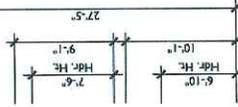


LEFT

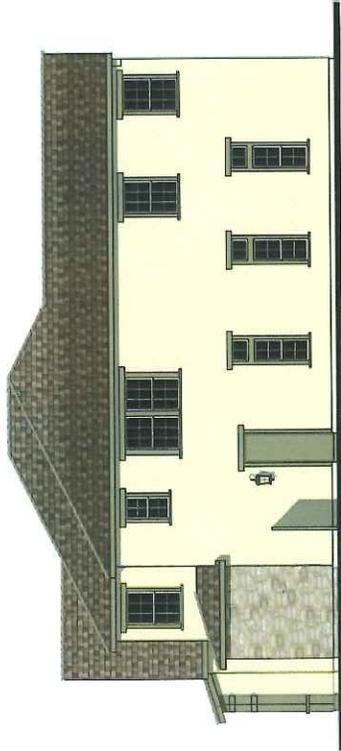
APPROXIMATE FENCE LOCATION



REAR



**ROOF PLAN**  
 FINISHED EAVES  
 1/2" x 6" RAFTERS  
 ROOF MATERIAL: FLAT CONCRETE TILE



RIGHT

APPROXIMATE FENCE LOCATION

**ELEVATIONS**  
**PLAN 3C**  
 CALIFORNIA COTTAGE

05.15.12

**A.14** **TRI Pointe**  
 COMMERCIAL  
 11000 BROADWAY  
 SUITE 100  
 HUNTINGTON BEACH, CA 92648  
 (714) 363-1000

**FORMER WARDLOW SCHOOL SITE**  
 HUNTINGTON BEACH, CALIFORNIA

SCALE: 1/4" = 1'-0"

**Bassenian | Lagoni**  
 ARCHITECTURE • PLANNING • INTERIORS  
 667.12017



6" HIGH BLOCK WALL WITH  
PERFORATION BLOCK CO. (TYPICAL)

BANKED ALLEYSIDE ENTRY PAVING  
(TYPICAL)

ACCENT PLANTING AT DRIVEWAY ENDS

VERTICAL TREE SCREEN  
(EXPANDED TYPICAL)

PARKWAY CANOPY STREET TREE

6'-6" WIDE TURF PAVEMENT

4'-0" WIDE SIDEWALK

PERIMETER 4" HIGH PERFORATION BLOCK WALL  
WITH PERFORATION BLOCK CO. (TYPICAL)

EXPANDED PERIMETER 6" HIGH SLUMP BLOCK WALL  
WITH PERFORATION BLOCK CO. (TYPICAL)

HORIZONTALS INSTALLED FRONT YARD  
LANDSCAPE

WATER QUALITY AREA

WALL RETURN 4" HIGH BLOCK WALL  
WITH PERFORATION BLOCK CO. AND SLUMP BLOCK CO. (TYPICAL)

BANKED PERIMETER CEMENTING  
(TYPICAL)

EMERGENCY ACCESS GATE

EXPANDED PERIMETER 6" HIGH SLUMP BLOCK WALL  
WITH PERFORATION BLOCK CO. AND SLUMP BLOCK CO. (TYPICAL)

VERTICAL TREE SCREEN

4'-0" WIDE SIDEWALK

PRODUCTION DRIVEWAY  
(TYPICAL)

EXPANDED PERIMETER 6" HIGH SLUMP BLOCK WALL  
WITH PERFORATION BLOCK CO. (TYPICAL)

PERIMETER 4" HIGH PERFORATION BLOCK WALL  
WITH PERFORATION BLOCK CO. (TYPICAL)

PERIMETER 4" HIGH PERFORATION BLOCK WALL  
WITH PERFORATION BLOCK CO. (TYPICAL)

NEIGHBORHOOD ENTRANCES WITH  
BANKED PAVING

NEIGHBORHOOD STORAGE

**NOTE**  
Refer to Sheet L2 for Street Names, Grades, and Lighting  
Notes. Refer to Sheet L3 for Wall Elevation.



2019.003

# CONCEPTUAL LANDSCAPE PLAN

07.09.12



L.I

## FORMER WARDLOW SCHOOL SITE HUNTINGTON BEACH, CALIFORNIA





PRECISION BLOCK WALL WITH PRECISION BLOCK CAP



SLUMP BLOCK PILASTER



SLUMP BLOCK WALL WITH SLUMP BLOCK CAP



SLUMP BLOCK WALL

# NEIGHBORHOOD WALL ELEVATIONS

07.09.12



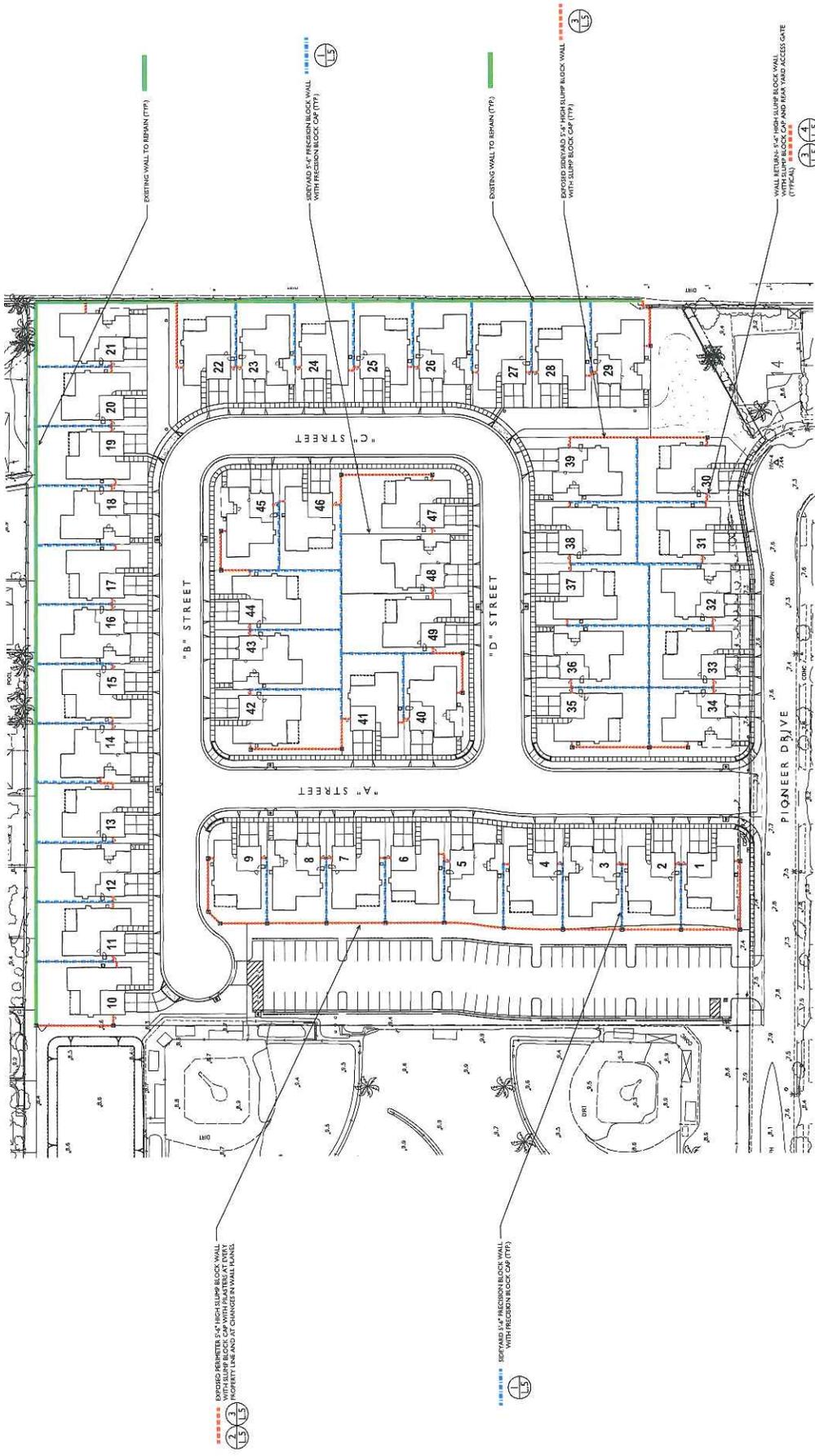
L.3

FORMER WARDLOW SCHOOL SITE  
HUNTINGTON BEACH, CALIFORNIA



2019.003

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EXPLODED PERIMETER 5'-6" HIGH SLUMP BLOCK WALL WITH PRECISION BLOCK CAP (TYP) PROPERTY LINE AND AT CHANGING WALL PLANS.

EXPLODED PERIMETER 5'-6" HIGH SLUMP BLOCK WALL WITH PRECISION BLOCK CAP (TYP)

EXPLODED PERIMETER 5'-6" HIGH SLUMP BLOCK WALL WITH PRECISION BLOCK CAP (TYP)

EXISTING WALL TO REMAIN (TYP)

EXPLODED PERIMETER 5'-6" HIGH SLUMP BLOCK WALL WITH PRECISION BLOCK CAP (TYP)

WALL RETURNS 5'-6" HIGH SLUMP BLOCK WALL WITH PRECISION BLOCK CAP AND TURN, TYPICAL (TYPICAL)

**NOTE**  
Refer to Sheet L2 for Floor Plans, Irrigation, and Lighting notes. Refer to Sheet L3 for Wall Details.



**JORVI**  
2019.003

**CONCEPTUAL WALL AND FENCE PLAN**

**FORMER WARDLOW SCHOOL SITE**  
HUNTINGTON BEACH, CALIFORNIA

**L.4**

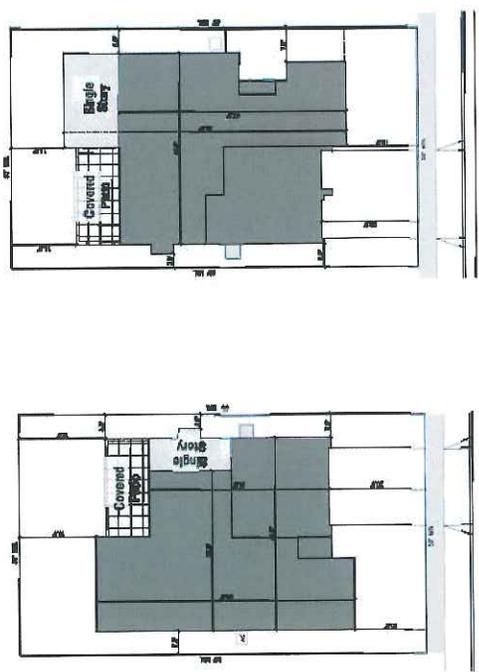
**TRI Pointe**  
RESIDENTIAL  
1150 JEFFERSON RD  
HUNTINGTON BEACH, CA 92648  
PH: 714.344.1111

07.09.12

ATTACHMENT NO. 4.22



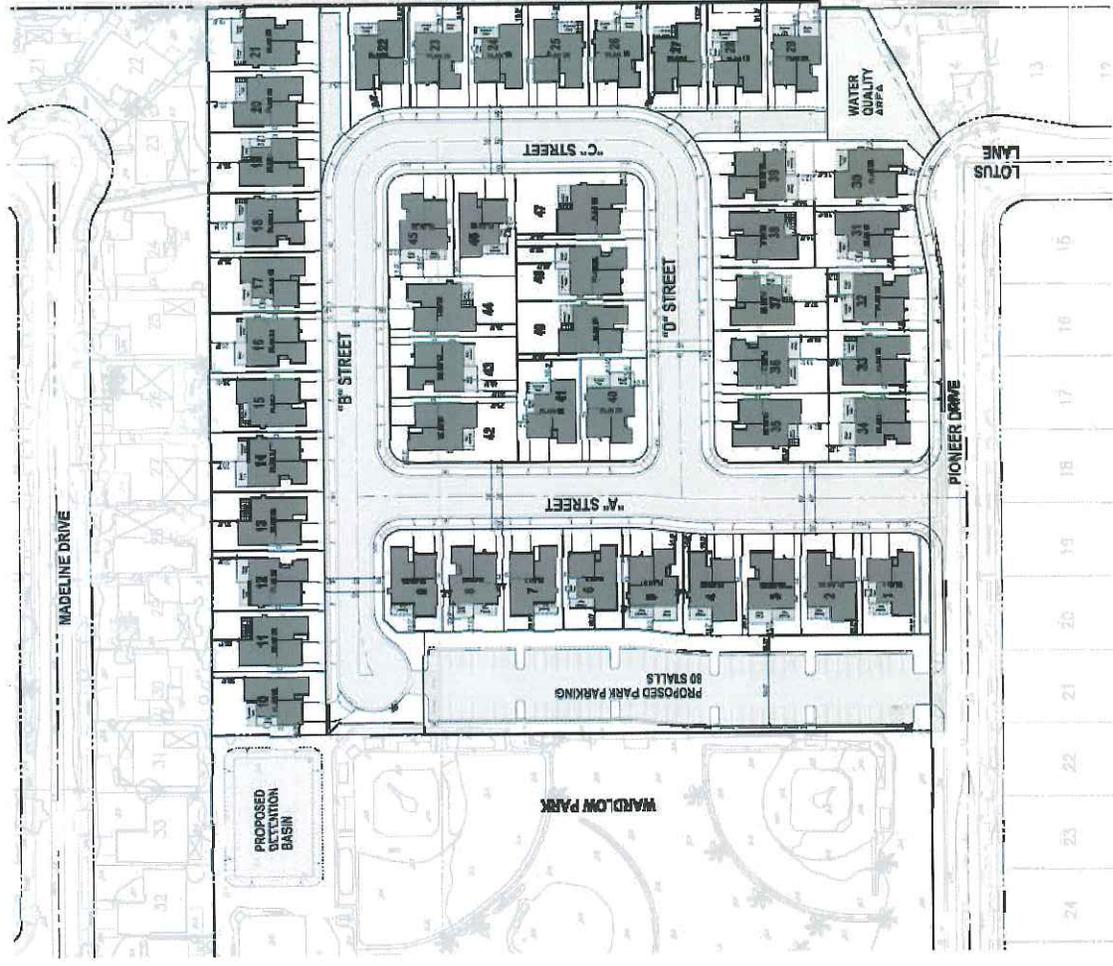
**TYPICAL MINIMUM LOT SETBACKS**



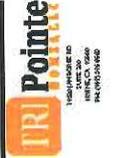
**PLAN TYPE 1**  
SINGLE-FAMILY

**PLAN TYPE 2**  
SINGLE-FAMILY

**Site Summary**  
 Total Homes : 48  
 Total Site Area : 55.35 Acres  
 Gross Site Area : 50.83 Acres  
 Future Park Dedication : 27.52 Acres  
 Net Site Area : 58.6 Acres/Acre  
 Density : 50+885' (4,260 s.f.)  
 Minimum Lot Size



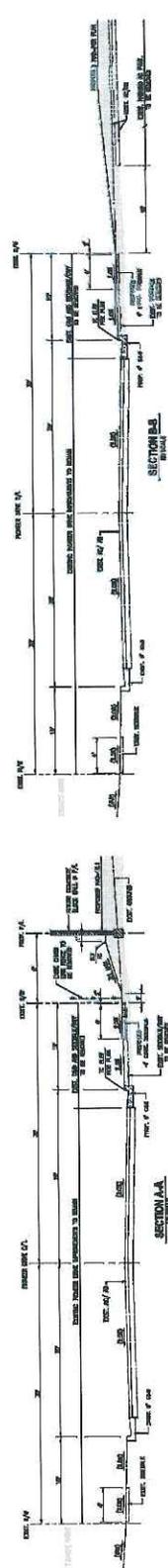
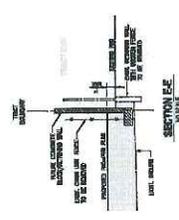
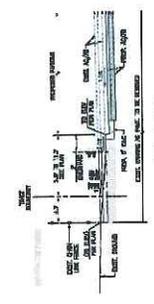
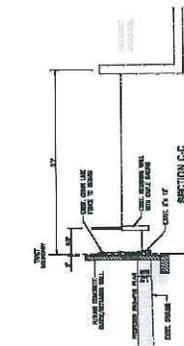
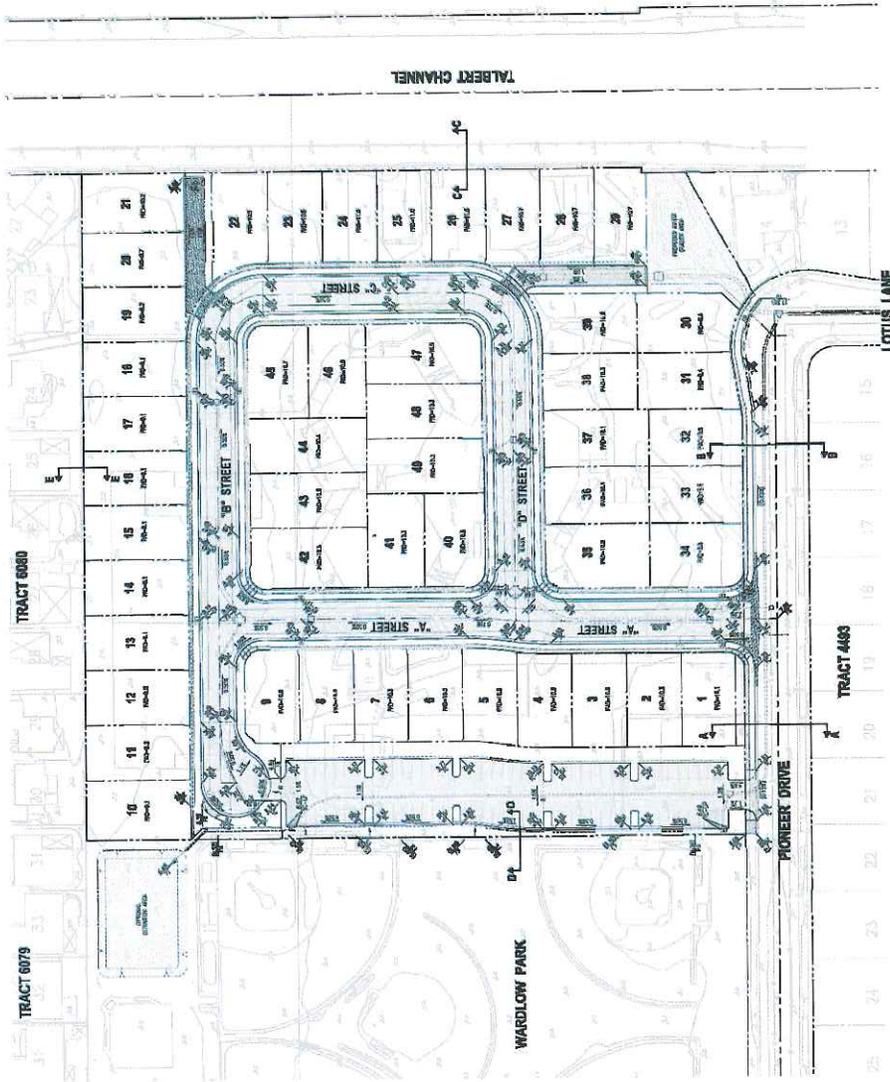
**TECHNICAL SITE PLAN**  
07.09.12



**C.1**

**FORMER WARDLOW SCHOOL SITE**  
HUNTINGTON BEACH, CALIFORNIA



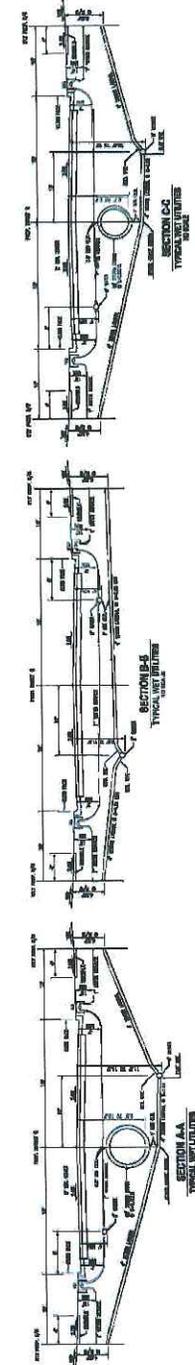
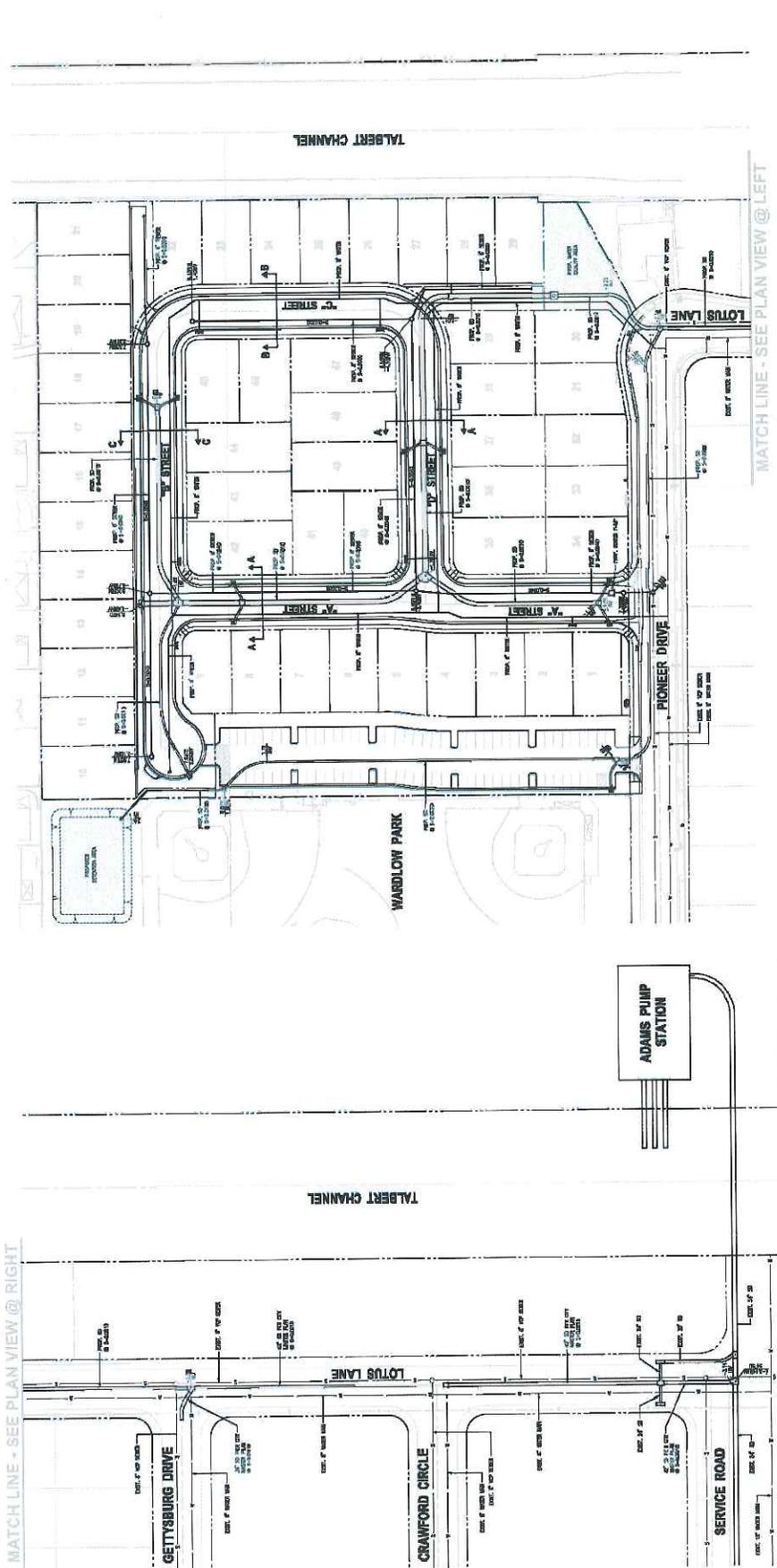


PRELIMINARY GRADING PLAN  
07.09.12



C.2  
FORMER WARDLOW SCHOOL SITE  
HUNTINGTON BEACH, CALIFORNIA

WALDEN & ASSOCIATES  
CIVIL ENGINEERS ARCHITECTS LANDSCAPE ARCHITECTS PLANNERS  
2502 WHITE ROAD, SUITE B, IRVINE, CA 92616  
(949) 699-0119 FAX: 949-699-1115



PRELIMINARY WET UTILITY PLAN

07.09.12



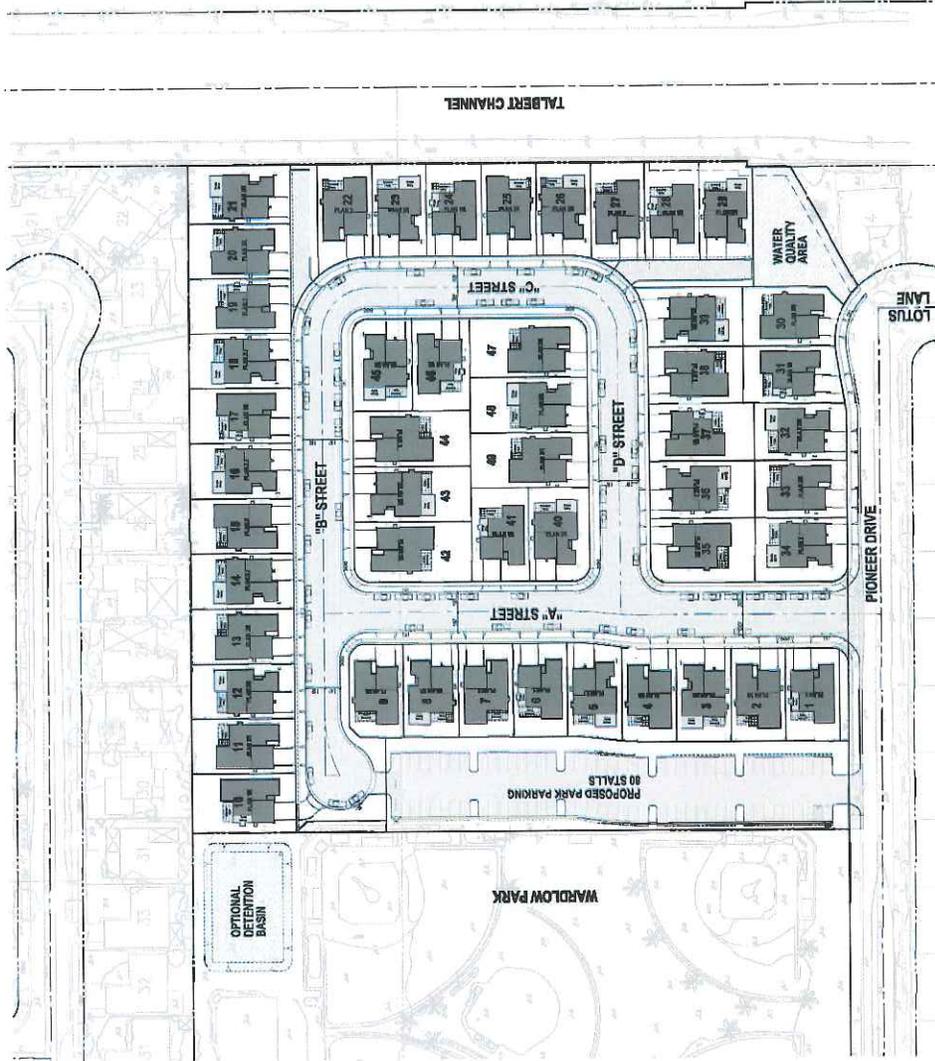
C-3

FORMER WARDLOW SCHOOL SITE  
HUNTINGTON BEACH, CALIFORNIA

WALDEN & ASSOCIATES  
CIVIL ENGINEERS  
AND SURVEYORS  
PLANNERS  
2855 HARBOR BOAT CENTER DRIVE, SUITE 100  
SAN SEBASTIAN, CALIFORNIA 94923



ATTACHMENT NO. 4.26



PARKING CALCULATION  
 ON-STREET RESIDENT PARKING = 56 SPACES  
 PUBLIC PARK PARKING = 80 SPACES



PRELIMINARY PARKING PLAN 07.09.12

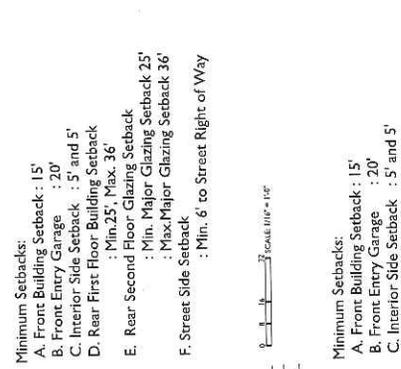


C.4

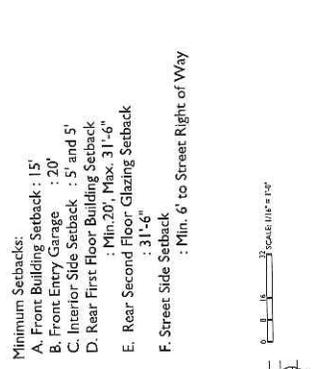
FORMER WARDLOW SCHOOL SITE  
 HUNTINGTON BEACH, CALIFORNIA

WALDEN & ASSOCIATES  
 CIVIL ENGINEERS  
 LAND SURVEYORS  
 PLANNERS  
 228 HUNTINGTON BEACH, CALIF. 92648  
 (949) 681-0100 FAX: 949-681-0101

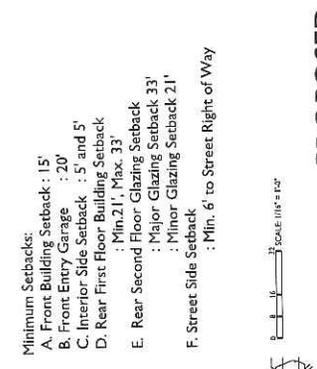




- Minimum Setbacks:
- A. Front Building Setback : 15'
  - B. Front Entry Garage : 20'
  - C. Interior Side Setback : 5' and 5'
  - D. Rear First Floor Building Setback : Min. 25', Max. 36'
  - E. Rear Second Floor Glazing Setback : Min. Major Glazing Setback 25', Max. Major Glazing Setback 36'
  - F. Street Side Setback : Min. 6' to Street Right of Way



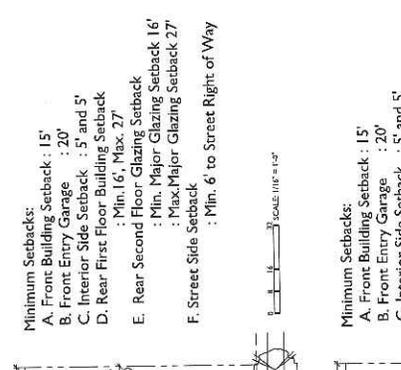
- Minimum Setbacks:
- A. Front Building Setback : 15'
  - B. Front Entry Garage : 20'
  - C. Interior Side Setback : 5' and 5'
  - D. Rear First Floor Building Setback : Min. 20', Max. 31'-6"
  - E. Rear Second Floor Glazing Setback : 31'-6"
  - F. Street Side Setback : Min. 6' to Street Right of Way



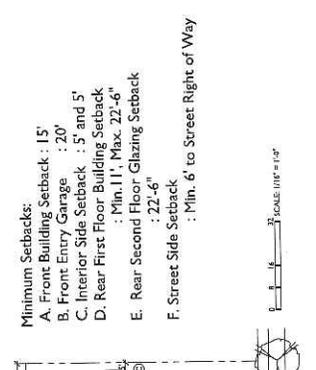
- Minimum Setbacks:
- A. Front Building Setback : 15'
  - B. Front Entry Garage : 20'
  - C. Interior Side Setback : 5' and 5'
  - D. Rear First Floor Building Setback : Min. 21', Max. 33'
  - E. Rear Second Floor Glazing Setback : Major Glazing Setback 33', Minor Glazing Setback 21'
  - F. Street Side Setback : Min. 6' to Street Right of Way

**PROPOSED BUILDING SETBACKS**

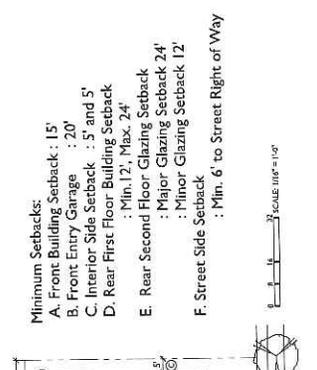
**Proposed Minimum Development Standards: Perimeter lots adjacent to existing homes**



- Minimum Setbacks:
- A. Front Building Setback : 15'
  - B. Front Entry Garage : 20'
  - C. Interior Side Setback : 5' and 5'
  - D. Rear First Floor Building Setback : Min. 16', Max. 27'
  - E. Rear Second Floor Glazing Setback : Min. Major Glazing Setback 16', Max. Major Glazing Setback 27'
  - F. Street Side Setback : Min. 6' to Street Right of Way

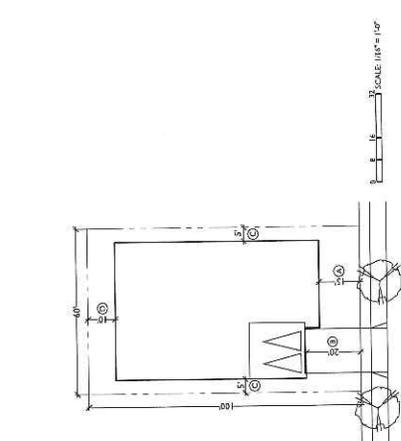


- Minimum Setbacks:
- A. Front Building Setback : 15'
  - B. Front Entry Garage : 20'
  - C. Interior Side Setback : 5' and 5'
  - D. Rear First Floor Building Setback : Min. 11', Max. 22'-6"
  - E. Rear Second Floor Glazing Setback : 22'-6"
  - F. Street Side Setback : Min. 6' to Street Right of Way



- Minimum Setbacks:
- A. Front Building Setback : 15'
  - B. Front Entry Garage : 20'
  - C. Interior Side Setback : 5' and 5'
  - D. Rear First Floor Building Setback : Min. 12', Max. 24'
  - E. Rear Second Floor Glazing Setback : Major Glazing Setback 24', Minor Glazing Setback 12'
  - F. Street Side Setback : Min. 6' to Street Right of Way

**Proposed Minimum Development Standards: Interior lots and Perimeter lots not adjacent to existing homes**



- Minimum Setbacks:
- A. Front Building Setback : 15'
  - B. Front Entry Garage : 20'
  - C. Interior Side Setback : Minimum 10% of Lot width, but not less than 3' and need not exceed 5' except lots >50' wide shall use minimum 10% of the lot width
  - D. Rear Building Setback : 10'
  - E. Rear Second Floor Building Setback : Not Provided
  - F. Street Side Setback : Min. 6', Max. 10'

**RL District Property Development Standards Code Section : 210.06**



SP.1

**FORMER WARDLOW SCHOOL SITE**  
HUNTINGTON BEACH, CALIFORNIA

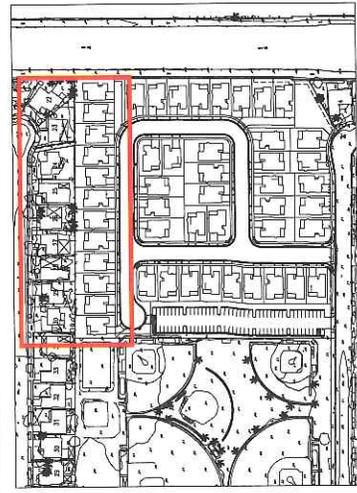




**Lot 10- Lot 21**

- IF : First Floor
- 2F : Second Floor
- SW : Small Window
- MW : Medium Window
- LG : Large Window
- D : Door
- LS : Dense Landscaping Windows not Visible

- (A)** Approximate Minimum Rear Building Setback from property line for existing homes
- (B)** Minimum Rear Building Setback from property line
- (C)** Second Story Primary Windows (Operable Windows)
  - : Accessible viewing (i.e. Master Bedroom Window)
- (D)** Second Story Secondary Windows (Minimal/Obstructed Viewing)
  - : Not easily accessible (i.e. Master Bath Window)
- (E)** Second Story Tertiary Windows (High Glass)
  - : Non-view window (i.e. High Glass Clerestory Window for daylight)



Key Site Map  
Not to Scale

ADJACENT PROPERTY WINDOW LOCATIONS - EXISTING TO PROPOSED

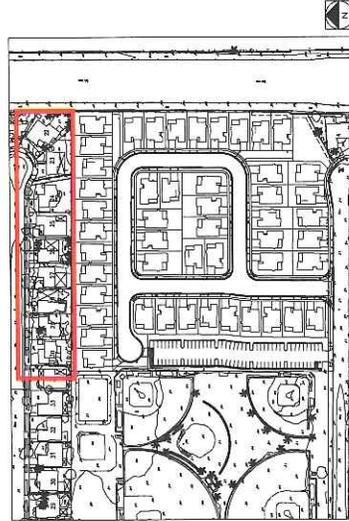


SP.2

**FORMER WARDLOW SCHOOL SITE**  
HUNTINGTON BEACH, CALIFORNIA

**Bassenian | Lagoni**  
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07.09.12



Key Site Map  
Not to Scale

SITE EDGE - ADJACENT  
EXISTING HOMES

07.09.12



SP.3

FORMER WARDLOW SCHOOL SITE  
HUNTINGTON BEACH, CALIFORNIA



Orange County Flood Control

Lotus Lane

Madeline Drive

Pioneer Drive

Former Wardlow School Site

Tentative Tract No. 17239

07/27/2012

PROPERTY LINE

PROPERTY LINE

Magnolia Street



4.32